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Oceanic Observations of the Pacific

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OCEANIC OBSERVATIONS OF THE PACIFIC

1958

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OCEANIC OBSERVATIONS OF THE PACIFIC: 1958

SCRIPPS INSTITUTION OF OCEANOGRAPHY OF THE UNIVERSITY OF CALIFORNIA

EDITORS: JOSEPH L. REID, JR., ROBERT S. ARTHUR, EDWARD B. BENNETT
ASSISTANT EDITOR: VIRGINIA A. WYLLIE

Consultants to Editorial Board: Elbert H. Ahlstrom, Biological Laboratory of the Bureau of Commercial Fisheries, La Jolla; Richard H. Fleming, University of Washington, Seattle; Eugene C. LaFond, U. S. Navy Electronics Laboratory, San Diego; John C. Marr, Biological Laboratory of the Bureau of Commercial Fisheries, Honolulu; John P. Tully, Fisheries Research Board of Canada, Pacific Oceanographic Group, Nanaimo

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Preface

Oceanic Observations of the Pacific is a medium for publication of oceanographic data collected in the Pacific Ocean and its adjacent seas by the cooperating agencies. At the present time these agencies are Scripps Institution of Oceanography of the University of California, San Diego, California; Biological Laboratory of the Bureau of Commercial Fisheries, Honolulu, Hawaii (formerly Pacific Oceanic Fishery Investigations); Biological Laboratory of the Bureau of Commercial Fisheries, La Jolla, California (formerly South Pacific Fishery Investigations); Biological Laboratory of the Bureau of Commercial Fisheries, Seattle, Washington (formerly Pacific Salmon Investigations); Department of Oceanography of the University of Washington, Seattle, Washington; Pacific Oceanographic Group of the Fisheries Research Board of Canada, Nanaimo, British Columbia; United States Navy Electronics Laboratory, San Diego, California. Certain cruises were carried out jointly as California Cooperative Oceanic Fisheries Investigations (CCOFI). The agencies cooperating in the CCOFI program are the Scripps Institution, the Biological Laboratory of the Bureau of Commercial Fisheries, La Jolla, the California Department of Fish and Game, the Hopkins Marine Station and the California Academy of Sciences.

In addition to the cooperating agencies, the United States Naval Oceanographic Office (formerly United States Navy Hydrographic Office), Washington, D. C., participated in one of the cruises presented in this volume.

Cruises in which more than one agency participated are usually listed under the agency which had a greater part in collecting and processing the physical and chemical data.

A grant from the National Science Foundation has supported part of the cost of preparing these data for publication and most of the printing cost.

The present volume contains observations made in 1958. For each hydrographic station, values of temperature, salinity and oxygen are tabulated at observed and at standard depths. Computed values of density, specific volume anomaly or thermosteric anomaly, and geopotential anomaly are also tabulated at standard depths. In addition, some observations of phosphorus, silicate, nitrite, nitrate, ammonia, acidity, alkalinity and reactive iron are included. The positions of the serial observations and the numbers of bathythermograph observations made in 1958 and during the period 1941 through 1958 are shown on charts. Information concerning each cruise is summarized in a table.

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Description of Observations

SIGNIFICANCE OF REPORTED OCEANOGRAPHIC DATA

Routine field measurements of oceanographic parameters by conventional methods are usually subject to at least the following random errors:

depth	± 4 m (in the upper 1000 m)
temperature	± 0.02°C
salinity	± 0.03‰ (Knudsen titration) ± 0.004‰ (conductivity bridge)
oxygen	± 0.04 ml/L
phosphate	± 0.05 to 0 1 μg at/L

The precision of measurements of temperature and of Knudsen determinations of salinity made in the field have been analyzed by Wooster and Taft (1958). The above estimate of the precision of measurements of salinity made routinely at sea by conductivity bridge is that of Strickland (1958b).

Interpolated values at standard depths are known with less precision, and the resulting uncertainty in specific volume anomaly and thermosteric anomaly at standard depths due to random errors in field measurements of temperature, salinity and depth is of the order of three centiliters per ton. Therefore, in this publication series it is the practice to report specific volume anomaly and thermosteric anomaly to no more than one part in 10^5 (one cl/ton) and geopotential anomaly to no more than the nearest dynamic centimeter.

It should be noted also that computations of salinity (from measured chlorinity) and density (sigma-t, specific volume anomaly and thermosteric anomaly) reported in this volume have all been based on the empirical equations and tables by Knudsen (1901) and Ekman (1908). Because of the inadequacy of our present knowledge of the equation of state of sea water (Eckart, 1958) and the uncertainty of the relationship between chlorinity and salinity (Carritt and Carpenter, 1959), it is possible that these computed values differ systematically from the absolute values. However, in the upper thousand meters at least, Reid (1959) has shown that the influence of such systematic errors on the accuracy of computed geostrophic flow is significantly smaller than the influence of errors in the determination of temperature, salinity, pressure and position.

NOTES ON PARTICULAR CRUISES

Expedition Dolphin

The primary objective of Expedition Dolphin, a survey of the International Geophysical Year, was to determine the structure of the Pacific Equatorial Undercurrent both from the physical and chemical data reported in this volume and from direct current measurements. During the first half of the cruise, RV Horizon of Scripps Institution and RV Hugh M. Smith on Cruise HMS-45 of the Biological Laboratory, Honolulu, alternately occupied a station on the equator at 140°W; the vessel not at the equatorial station engaged in measurements in a short meridional section at that longitude. A series of hydrographic and current stations by RV Horizon along the equator between 137°W and 89°W comprised the second half of Dolphin Expedition.

Expedition Doldrums

RV Horizon, RV Spencer F. Baird and RV Stranger of Scripps Institution and the Columbian frigate Almirante Padilla (replaced in mid-operation by the frigate Capitán Tono) participated in Expedition Doldrums as part of the International Geophysical Year. Because the primary purpose of the expedition was to study short-period fluctuations in the North Equatorial Countercurrent between 85°W and 110°W, BT observations and GEK measurements of surface current comprised nearly the whole program of observations. In addition, however, direct measurements of subsurface current were made by RV Horizon and the hydrographic data reported in this volume were collected by RV Stranger.

Cruises TO-58-1 and TO-58-2

The Scripps Tuna Oceanography Research Program of the Scripps Institution made two cruises in 1958. Cruise TO-58-1 (Expedition SCOT) was partly financed by the Inter-American Tropical Tuna Commission and partly devoted to work of the IATTC; the physical, chemical and biological data (except primary productivity and total phosphorus) are listed in Special Scientific Report, U. S. Fish and Wildlife Service, Fisheries No. 345. Similar data from Cruise TO-58-2 are listed in Special Scientific Report, U. S. Fish and Wildlife Service, Fisheries No. 420 (which also contains data on primary productivity and total phosphorus from TO-58-1, in Appendices 1 and 2).

The main purpose of Cruise TO-58-1 was to gather information about the distribution and interrelationships of properties, especially biological, in the eastern tropical Pacific Ocean north of the equator at a different season (northern spring) from earlier expeditions (mainly in northern autumn). Other purposes were to commence a detailed oceanographic study of the Gulf of Tehuantepec, to be continued on later cruises made at different seasons, and to look for larvae of yellowfin tuna (as an indicator of spawning by that species) off the coast of southern Mexico. The main purposes of Cruise TO-58-2 were to continue the study of the Gulf of Tehuantepec and to test the suitability of certain types of moored unmanned stations.

Cruises HMS-45 and HMS-46

The data collected by RV Hugh M. Smith on these two cruises have been corrected for an error in depth calculation reported by Thomas S. Austin (1962). (This error had been made in the calculation of all data of the RV Hugh M. Smith and RV Charles H. Gilbert reported in Special Scientific Reports, U. S. Fish and Wildlife Service, Fisheries Nos. 168, 180, 201, 217, 238, 252, 315, 358 and part of 164.) The recalculations of the data of the 1958 Hugh M. Smith cruises were made through the facilities of the IGY World Data Center A, Oceanographic Archive, Agricultural and Mechanical College of Texas. Interpolation for values at standard depths was performed by a machine program that fitted a parabola to the four observed values surrounding the desired standard depth (two above and two below), to pass through the two inner observed values and to be a least-squares fit to the two outer observed values. Re-editing by the Bureau of Commercial Fisheries, Honolulu, of these machine calculations was done by comparing them with characteristic curves and then making adjustments for any peculiarities introduced by the machine interpolations where points were widely scattered.

MV Attu and MV Pioneer

The data collected by MV Attu and MV Pioneer represent the second summer's field work by the Oceanographic Section of the Biological Laboratory, Seattle, under the direction of the American Section of the International North Pacific Fisheries Commission. The observations were taken on board fishing vessels chartered to continue the investigation of the distribution and migration of salmon in the North Pacific Ocean and the Bering Sea. Physical, chemical and biological data are listed in Special Scientific Report, U. S. Fish and Wildlife Service, Fisheries No. 312.

The purpose of the oceanographic observations was to define the general oceanographic salmon environment, reveal geographic differences in the general environment and investigate the relationships of physical, chemical and biological properties to the abundance and distribution of salmon stocks.

King Crab Investigations

Data were collected by MV Tordenskjold in Bristol Bay of the Bering Sea by the King Crab Investigations of the Biological Laboratory, Seattle, for the International North Pacific Fisheries Commission. The research program included an ecological study of the eastern Bering Sea. During the summers of 1958 and 1959 samples of invertebrate bottom fauna were collected by biologists to identify the food organisms of the king crab and to establish the relationship of king crabs to other fauna of the area. Biological data collected during 1958 and 1959 are listed in Special Scientific Report, U. S. Fish and Wildlife Service, Fisheries No. 401.

Cruises P-58-1 through P-58-4, NP-58-1 through NP-58-3, S-4-58, S-3-58, F-8-58, S-9-58 and CS-58-1

The interpolation for values at standard depths and the determination of calculated depths were carried out on the ALWAC III-E digital computer at the computing center of the University of British Columbia, Vancouver, B. C. (Fofonoff and Tabata, 1958; Fofonoff and Froese, 1958). Interpolations were made by the three-point Lagrange method in accordance with procedures used by the U. S. Naval Oceanographic Office, Washington, D. C. (U. S. N. Hydrogr. Off., 1960; Nat. Oceanogr. Data Center, 1962).

Cruise CC-58-1

The fifteen hydrographic stations occupied on this special survey off the coast of British Columbia are not considered by the Pacific Oceanographic Group to meet the observational standard of their regular oceanographic surveys. These data are included in this volume because of the wide range of chemical properties observed.

USS Burton Island

The interpolation for values at standard depths and determination of calculated depths were carried out by machine programs at the U. S. Naval Oceanographic Office, Washington, D. C. Interpolations were made by the three-point Lagrange method (U. S. N. Hydrogr. Off., 1960; Nat. Oceanogr. Data Center, 1962). The data presented in this volume were taken from Oceanographic Data Report, Arctic, 1958 (U. S. Naval Oceanogr. Off., unpublished manuscript).

Cruises BB-188, BB-193, BB-199 and BB-202

Interpolation of values at standard depths was performed by the IBM Type 650 Magnetic-Drum Data-Processing Machine in the Research Computer Laboratory of the University of Washington, using the three-point Lagrange curve based upon one point above and two points below the desired depth. Corrections were made for any peculiar interpolations which resulted from use of this method in the upper layers.

Cruise	Vessel	Dates of hydro. casts	Number and depths of hydrographic stations					T and S obs at 10 and 50 m	No. of BT obs
			0-500 m	500-1000 m	1000-2000 m	>2000 m	Total		
CCOFI									
5801	Black Douglas[a]	9-21 i	8	10	0	0	18	0	78
	Paolina-T	14 i-1 ii	13	43	0	0	56	0	96[c]
	Stranger	14 i-2 ii	22	55	0	0	77	0	255
5802	Paolina-T	7-19 ii	1	9	0	0	10	44	88[c]
	Stranger	10-24 ii	4	4	0	0	8	72	138
5803	Black Douglas	28 ii-20 iii	7	22	0	0	29	54	147
	Stranger	7-19 iii	4	6	0	0	10	66	138[c]
5804	Black Douglas	5-27 iv	17	35	0	0	52	24	22
	Paolina-T	1-22 iv	7	39	0	0	46	37	107
	Spencer F. Baird	31 iii-11 iv	4	3	0	0	7	8	32
	Stranger	3-27 iv	28	42	0	0	70	30	138
5805	Black Douglas	9-21 v	0	3	0	0	3	82	118
	Paolina-T	4-15 v	1	2	0	0	3	73	83
	Stranger	4-17 v	3	9	0	0	12	55	112
5806	Black Douglas	5-15 vi	1	4	0	0	5	41	100
	Orca	5-25 vi	3	7	0	0	10	94	149
	Stranger	7-23 vi	1	2	0	0	3	61	102

O_2	PO_4-P	Depth determination: Usual No. Nansen btls	No. P therms/btl	Btls w/U therms	Surface T underway	Plankton tows	Surface currents	Other measurements and observations
13	0	17	2	11	thermograph	33[b]	3 GEK; drift btls released	Marine mammal watch; pelagic marine life obs
46	0	17	2	11	thermograph	56[b]	68 GEK; drift btls released, 12/sta	Marine mammal and albatross logs; pelagic marine life obs on sta and at BT obs
69	0	17	2	11	thermograph	62[b]	-	Marine mammal log; pelagic marine life obs with BT ob
0	0	17	2	11	thermograph	54[b]	33 GEK; drift btls released from 30 stas	Marine mammal and daytime bird logs; pelagic marine life obs
8	0	17	2	11	thermograph	80[b]	-	Marine mammal and bird logs; pelagic marine life obs
26	0	17	2	10	thermograph	82[b]	57 GEK; drift btls released[d]	Marine mammal and daytime albatross logs; pelagic marine life obs
10	0	17	2	11	thermograph	77[b]	19 GEK; drift btls released from 2 stas	Jig-line fishing; marine mammal and daytime albatross logs; pelagic marine life obs
51	0	17	2	10	thermograph	78[b]	78 GEK; 12 drift btls released from designated inshore stas	50 phyto. hauls with small fine-meshed net; marine mammal and albatross logs
46	0	17	2	10	thermograph	81[b] 4[e]	7 GEK; 780 drift btls released, 12/sta	Phyto. hauls at all hydro. stas, to 50 m on alternate stas and 10-min. surface hauls on the other stas; daylight mammal watch; albatross log; pelagic marine life obs
6	0	17	2	10	thermograph	12[b]	1 GEK; total of 312 drift btls released	Phyto. hauls
69	0	17	2	10	thermograph	100[b]	27 GEK; 12 drift btls each from designated stas	Vertical or horizontal phyto. hauls at each hydro. sta as far as Sta. 113.50; marine mammal watch; albatross log; pelagic marine life obs
3	0	17	2	10	thermograph	86[b]	70 GEK; 552 drift btls released, 12/sta	Phyto. samples at 11 stas; jig-line fishing; marine mammal and bird logs; pelagic marine life obs
3	0	17	2	10	thermograph	81[b]	624 drift btls released, 12/sta and 48 special btls	Marine mammal and daytime albatross logs; pelagic marine life obs
12	0	17	2	10	thermograph	66[b]	34 GEK; 768 drift btls released[f]	Marine mammal and daytime albatross logs; pelagic marine life obs
5	0	17	2	8	thermograph	46[b]	65 GEK; 552 drift btls released, 12/sta	Jig-line fishing; marine mammal and daytime albatross logs; pelagic marine life obs
9	0	17	2	8	thermograph	104[b]	864 drift btls released, 12/sta	Marine mammal and daytime albatross logs; pelagic marine life obs at BT stas
3	0	17	2	8	thermograph	64[b]	51 GEK; 396 drift btls released, 12/sta	Marine mammal and daytime albatross logs; pelagic marine life obs at BT stas

Cruise	Vessel	Dates of hydro. casts	Number and depths of hydrographic stations 0-500 m	500-1000 m	1000-2000 m	>2000 m	Total	T and S obs at 10 and 50 m	No. of BT obs
5807	Black Douglas	8-21 vii	26	26	0	0	52	23	92
	Orca	2-20 vii	17	40	0	0	57	34	109
	Paolina-T	4-17 vii	8	33	0	0	41	21	75
	Stranger	30 vi-14 vii	13	26	0	0	39	12	93
5808	Black Douglas	6-21 viii	15	8	0	0	23	32	43
5809	Black Douglas	5-9 ix	16	5	0	0	21	0[i]	44
	Orca	10-19 ix	9	26	0	0	35	0[i]	59
5810	Black Douglas	10-28 x	25	44	0	0	69	27[i]	124
	Horizon	13-18 x	0	2	23	0	25	0[i]	34
	Paolina-T	8-20 x	10	38	0	0	48	14[i]	96
	Stranger	17 x-5 xi	13	41	20	0	74	13[i]	149
5811	Paolina-T	13-23 xi	6	21	0	0	27	18[i]	72
5812	Orca	2-11 xii	14	15	0	0	29	18[i]	81
SIO									
Dolphin	Horizon[a]	7 iv-30 v	0	2	35	0	37	0	396
Doldrums	Stranger[a]	15-20 viii	1	2	8	0	11	0	490

INFORMATION (cont.)

O_2	PO_4-P	Depth determination: Usual No. Nansen btls	Depth determination: No. P therms/btl	Depth determination: Btls w/U therms	Surface T underway	Plankton tows	Surface currents	Other measurements and observations
51	0	17	2	8	thermograph	75[b]	636 drift btls released, 12/sta	Jig-line fishing; marine mammal and albatross logs; pelagic marine life obs
55	0	17	2	8	thermograph	91[b]	684 drift btls released, 12/sta	Jig-line fishing; marine mammal and albatross logs; pelagic marine life obs
41	0	17	2	8	thermograph	111[b]	588 drift btls released, 12/sta	Jig-line fishing; marine mammal and albatross logs; pelagic marine life obs
5	0	17	2	8	thermograph	50[b]	5 GEK; 576 drift btls released, 12/sta	Marine mammal and albatross logs; pelagic marine life obs
23	0	17	2	8	thermograph	37[b] 9[g] 11[h]	456 drift btls released, 12/sta	Jig-line fishing; marine mammal and albatross logs; pelagic marine life obs
21	0	17	2	8	thermograph	36[b] 6[j]	420 drift btls released, 12/sta	Polychaete worms collected from 500 m, 1000 m, 1500 m and 2000 m; jig-line fishing; marine mammal and daytime albatross logs
35	0	17	2	8	thermograph	53[b]	640 drift btls released, 12/sta	Marine mammal and daytime albatross logs; pelagic marine life obs
66	0	17	2	7	thermograph	96[b]	1462 drift btls released, 24/sta[k]	Jig-line fishing; marine mammal and albatross logs; pelagic marine life obs
25	0	17	2	9	thermograph	12[b]	376 drift btls released, 24/sta[l]	Close pattern of deep hydro. stas in Davidson Seamount area while USS Thrasher conducted drogue survey to determine effects of seamount; marine mammal and daytime albatross logs; pelagic marine life obs
48	0	17	2	7	thermograph	61[b]	1368 drift btls released, 24/sta[l]	Jig-line fishing; marine mammal and albatross logs; pelagic marine life obs
73	0	17	2	9	thermograph	89[b]	2206 drift btls released, 24/sta[l]	Jig-line fishing; marine mammal and daytime albatross logs; pelagic marine life obs on sta
27	0	17	2	8	thermograph	43[b]	1080 drift btls released, 24/sta[l]	Marine mammal and albatross logs; pelagic marine life obs
26	0	17	2	8	thermograph	46[b]	1104 drift btls released, 24/sta[l]	22 phyto. hauls; marine mammal and daytime albatross logs
36	13	17	2	10	thermograph	0	51 GEK	Current measurements using Roberts meter; magnetometer measurements; Precision Depth Recorder (PDR) in operation; dredge hauls
11	0	17	2	10	thermograph	0	GEK[b]	Subsurface current measurements by Roberts meter; 7 current measurements using Swallow float

Cruise	Vessel	Dates of hydro. casts	Number and depths of hydrographic stations					T and S obs at 10 and 50 m	No. of BT obs
			0-500 m	500-1000 m	1000-2000 m	>2000 m	Total		
TO-58-1 SCOT	Spencer F. Baird[a]	25 iv-18 vi	13	15	31	2	61	0	333[c]
TO-58-2	Spencer F. Baird[a]	22 xi-2 xii	11	10	0	0	21	0	148
HBL									
HMS-45	Hugh M. Smith	6 iv-15 vi	0	2	42	0	44	0	258
HMS-46	Hugh M. Smith[f]	23 vii-3 ix	0	0	52	0	52	0	325

2	PO_4-P	Depth determination: Usual No. Nansen btls	Depth determination: No. P therms/btl	Depth determination: Btls w/U therms	Surface T underway	Plankton tows	Surface currents	Other measurements and observations
9	59	16	2	10	thermograph	98[d] 28[f] 123[g] 23[h] 57[i]	85 GEK[e]	Incident solar radiation measurements by 10-junction Eppley pyrheliometer; photometer lowerings to approx. 100 m to measure submarine daylight; phyto. samples, including 46 hauls, 50-0 m; surface and subsurface chlorophyll a standing crop determinations; zooplankton and nekton standing crop determinations; surface and subsurface primary production study, using the carbon-14 method, of samples collected by trailing bottles and plastic Van Dorn-type samplers
21	20	17	2	11	thermograph	14[d] 3[f] 6[g]	98 GEK	Incident solar radiation measurements by 10-junction Eppley pyrheliometer; photometer lowerings to measure submarine daylight; 6 phyto. vertical hauls, 50-0 m, with 17-cm Hensen-type net (mesh size 32μ); chlorophyll a standing crop determinations; zooplankton standing crop measurements; micronekton standing crop measurements; surface and subsurface primary production study, using the carbon-14 method, of samples collected by trailing bottles and plastic Van Dorn-type samplers
44	44	17	2[a]	13	thermograph	39[b] 12[d] 12 pairs[e]	32[c]	Study of diurnal variability in distribution of tuna larvae at one sta in Marquesas area; daylight surface trolling; 110 stomachs and 55 ovaries of skipjack preserved; at each hydro. sta between 0800-1600, photometer measurements at 105 and 1% light transmission; Forel water-color measurements; Secchi disc obs; surface S and PO_4-P samples at each BT ob offshore and at local noon daily inshore; 4 night-light collections; bird and fish-school logs
52	52[g]	13	2	9	thermograph	29[h] 25[i] 7[j]	-	3 20-min. Isaacs-Kidd midwater-trawl hauls; 7 long-line fishing stas; 19 gill-net stas (with night-light collections); direct surface trolling; 3 albacore tagged; stomachs from all long-line and troll catches and 19 albacore head sections preserved; Secchi disc obs; bird and fish-school logs

Cruise	Vessel	Dates of hydro. casts	Number and depths of hydrographic stations 0-500 m	500-1000 m	1000-2000 m	>2000 m	Total	T and S obs at 10 and 50 m	No. of BT obs
HBL/IGY									
CHG-37	Charles H. Gilbert	22 i	1	1	0	0	2	0	13
HMS-43	Hugh M. Smith	28 ii	1	1	0	0	2	0	9
HMS-44	Hugh M. Smith	24-25 iii	1	1	0	0	2	0	19
Makua	Makua	21-22 iv	0	2	0	0	2	0	20
CHG-39	Charles H. Gilbert	30 v-22 vi	3	2	0	0	5	0	18
HMS-46	Hugh M. Smith	22 vii	0	1	1	0	2	0	8
CHG-41	Charles H. Gilbert	20 viii-26 ix	3	1	0	0	4	0	16
Makua	Makua	21-22 x	0	2	0	0	2	0	9
HMS-48	Hugh M. Smith	21 xi	1	0	1	0	2	0	7
HMS-49	Hugh M. Smith	19 xii	3	1	0	1	5	0	10
SBL									
-	MV Attu	14 v-29 viii	51	7	20	0	78	0	127
-	MV Pioneer	18 v-30 viii	57	10	38	0	105	0	267
King Crab Investigations	MV Tordenskjold	29 iv-15 vii	167	0	0	0	167	0	169

	PO_4-P	Depth determination: Usual No. Nansen btls	Depth determination: No. P therms/btl	Depth determination: Btls w/U therms	Surface T underway	Plankton tows	Surface currents	Other measurements and observations
2	2	12	2	8	-	2[a] 2[b]	-	Secchi disc and water-color obs
2	2	12	2	8	-	0	-	-
2	2	12	2	8	-	4[a] 2[b]	-	Photometer, Secchi disc and water-color obs
0	0	12	1-2	8	-	4[a] 2[b]	-	Secchi disc and water-color obs
3	1	4 w/12 2 w/8	1-2	8 4	-	6[a] 3[b]	-	Secchi disc and Forel scale water-color obs
2	2	15/10	2	11/6	-	2[a]	-	-
4	2	10	2	6	-	4[a] 2[b]	-	Secchi disc and Forel scale water-color obs
1	2	12	2	8	-	4[a] 2[b]	-	Photometer, Secchi disc and Forel scale water-color obs
0	2	shallow, 12 deep, 8	2	shallow, 6 deep, 8	-	2[a] 1[b]	-	-
1	1	shallow, 12 deep, 8	2	shallow, 6 deep, 8	-	4[a]	-	Photometer and Secchi disc obs
70	0	deep, 4 shallow, 10	2 2	4 6[b]	-	29[a] 24[c]	5 releases of drift btls, total 241	Investigation of distribution and migration of salmon; gill-net fishing; Isaacs-Kidd trawl hauls;[d] numbers of 10 different organisms and numbers of copepods (13 species) per cubic meter of water filtered during plankton hauls
91	0	deep, 4 shallow, 10	2 2	4 6[b]	-	41[a] 39[c]	5 releases of 50 drift btls each	Investigation of distribution and migration of salmon; gill-net fishing; 41 Isaacs-Kidd trawl hauls;[d] numbers of 10 different organisms and numbers of copepods (13 species) per cubic meter of water filtered during plankton hauls
0	0	4	2	0	-	0	-	Survey of the benthic invertebrate fauna (pelecypods, gastropods, barnacles, decapod crustaceans, tunicates and the majority of echinoderms) collected in the eastern Bering Sea using otter trawls and a box-type dredge[e]

Cruise	Vessel	Dates of hydro. casts	Number and depths of hydrographic stations 0-500 m	500-1000 m	1000-2000 m	>2000 m	Total	T and S obs at 10 and 50 m	No. of BT obs
POG									
PAPA, P-58-1	CGS St. Catharines[a]	9 iii-16 iv	6	0	5	0	11	0	PAPA total: 843[d]
PAPA, P-58-2	CGS St. Catharines[a]	31 v-8 vii	34	1	7	0	42	0	
PAPA, P-58-3	CGS St. Catharines[a]	23 viii-22 ix	4	2	8	0	14	0	
PAPA, P-58-4	CGS St. Catharines[a]	3 xi-11 xii	6	2	5	1	14	0	
NP-58-1	HMCS Oshawa[g]	11 iii-11 iv	26	11	27	35	99	0	108[h]
S-4-58	HMCS Oshawa[k]	24-26 iv	0	1	7	2	10	0	42[l]
S-3-58	HMCS Oshawa[n]	17-27 v	16	3	3	0	22	0	142[o]
CC-58-1	HMCS Oshawa[p]	23 vi-4 vii	13	2	0	0	15	0	20[q]
NP-58-2	CNAV Whitethroat[t]	27 vi-14 viii	14	10	66	7	97	0	149[u]
NP-58-3	HMCS Oshawa[w]	23 vii-16 viii	41	19	39	0	99	0	190[u]
F-8-58	HMCS Oshawa[n]	2-7 ix	0	0	2	3	5	0	25[u]
S-9-58	HMCS Oshawa	26-29 ix	1	2	1	4	8	0	33[x]

	Depth determination						
PO_4-P	Usual No. Nansen btls	No. P therms/btl	Btls w/U therms	Surface T underway	Plankton tows	Surface currents	Other measurements and observations
9[b]	14	1-2	3[c]	at BT	PAPA total: 226[e]	1000 drift btls released on arrival on sta	Samples for SiO_3-Si[b] determination at 10 stas; NO_2-N,[b] 11; Secchi disc reading on all daylight stas; detailed marine life obs of birds and mammals twice daily
11[b]	14	1	3[c]	at BT		1000 drift btls released on arrival on sta	Samples for SiO_3-Si[b] determination at 13 stas; NO_2-N,[b] 12; Secchi disc reading on all daylight stas; detailed marine life obs of birds and mammals twice daily
8[b]	14	1	3[c]	at BT		500 drift btls released on arrival on sta[f]	Samples for SiO_3-Si[b] determination at 12 stas; NO_2-N,[b] 8; Secchi disc reading on all daylight stas except during rough weather; detailed marine life obs of birds and mammals on each 4-hr daytime watch
0	14	1-2	3[c]	at BT		500 drift btls released on arrival on sta[f]	Samples for NO_2-N[b] determination at 2 stas; Secchi disc reading on all daylight stas except during rough weather; detailed marine life obs of birds and mammals on each 4-hr daytime watch
0	18	1	4-6[i]	at BT	73[j]	-	Secchi disc readings at some daylight stas; marine life log
0	19	1-2	3/cast	at BT	3[m]	-	-
0	13	1-2	3/cast	at BT	0	-	-
10[b]	10[r]	1, 1 pair	1	-	1[m]	-	Samples for determination of SiO_3-Si,[b] NO_2-N,[b] NO_3-N,[s] Alk., pH,[b] NH_3[s] and total phosphorus at 10 stas (pp. 627-636); reactive iron, 9 stas; daily measurements of light attenuation with depth in as many different sea regions as practicable (at 9 stas)
0	16	1, 5 pairs	1-3[v]	at BT	±80[m]	500 drift btls released twice	Marine life obs
0	19	1, 1 pair	3	at BT	80[m]	-	Samples for SiO_3-Si[b] determination at 11 stas; NO_3-N,[s] 2; Secchi disc reading at most daylight stas
0	17	1	4	-	0	-	-
0	20	1-2, 16 pairs	5/cast	at BT	0	-	-

Cruise	Vessel	Dates of hydro. casts	Number and depths of hydrographic stations 0–500 m	500–1000 m	1000–2000 m	>2000 m	Total	T and S obs at 10 and 50 m	No. of BT obs
CS-58-1	CNAV Whitethroat[p]	12 xi–6 xii	87	2	11	0	100	0	128[y]
USNOO									
-	USS Burton Island	12–13 ix	6	0	0	0	6	0	44
UW									
BB-188	Brown Bear	19–28 ii	13	3	13	0	29	0	62
BB-193	Brown Bear	16–17 iv	1	1	0	0	2	0	0
BB-199	Brown Bear[e]	2 vii–20 viii	3	0	28	11	42	0	467[f]
BB-202	Brown Bear[o]	21 ix–2 x	4	1	9	0	14	0	121

	PO_4-P	Depth determination: Usual No. Nansen btls	No. P therms/btl	Btls w/U therms	Surface T underway	Plankton tows	Surface currents	Other measurements and observations
)	0	19	1-2, 17 pairs	6	at BT	12[m]	-	Samples for SiO_3-Si[b] determination at 11 stas; NO_3-N,[s] 3; Secchi disc reading at some daylight stas
0	0	7	2	0	-	24[a]	-	48 samples of bottom sediments collected by Phleger corer or Orange Peel grab; measurements at 3 depths with Ekman current meter at 18 stas; bottom photographs; ice logs; various biological samples
8[a]	29[b]	15	2	all btls below 100 m	33	13[c] 13[d]	-	Coring; 6 30-min. midwater-trawl hauls, 200-0 m, using a 3- or 6-ft modified Isaacs-Kidd trawl
2[a]	0	12	2	all btls below 100 m	-	0	-	Thermistor measurements for Applied Physics Lab.
2[g]	39[h]	22	2	all btls below 100 m	20	39[i] 39[k] 39[m]	GEK	Samples for SiO_3-Si[j] determination at 30 stas; pH,[l] 25; Alk.,[n] 25; Fe and Mn samples at 7 stas; 50-gal. water samples for C-14 analysis, 100 m above bottom, at 11 stas and at minimum O_2 layer at 5 stas; 8 50-gal. surface water samples for geochem. studies; 336 30-min. midwater-trawl hauls, 400-0 m, using a 3- or 6-ft modified Isaacs-Kidd trawl; 13 cores; productivity and light intensity studies; Secchi disc obs; albacore trolling
4[a]	14[p]	12	2	all btls below 100 m	107	30[q] 30[r]	-	89 30-min. midwater-trawl hauls, 400-0 m, using a 3- or 6-ft modified Isaacs-Kidd trawl; coring

General Methods

Unless otherwise indicated, subsurface temperature by paired reversing thermometers; salinity by Knudsen method (reported to hundredths) or by conductivity bridge (reported to thousandths, except POG Cruises S-4-58 and NP-58-3 and UW Cruise BB-199); dissolved oxygen by Winkler method aboard ship; inorganic phosphate by the molybdenum-blue method (Wooster and Rakestraw, 1951).

When available, specific information on accuracy is indicated by footnotes. Absence of such information does not imply that the nominal accuracies have been achieved.

CCOFI

a CCOFI thermometer calibrations indicate the temperature accuracy to be 0.02°C; field tests indicate a salinity accuracy of ±0.025‰ (root mean square).
b Oblique plankton tow to approximately 140 m (200 m of wire out, or less in shallow water) taken with a 30XXX net, 1.0 m in diameter at mouth by approximately 5 m in over-all length with detachable cod end of 56XXX nylon grit gauze.
c BT lowering on all stations and halfway between stations and station lines.
d Twelve drift bottles were released at all stations on Lines 70 to 93, at the outer two stations on Line 97, at all stations except the inner two on Line 100, at the outer three stations on Line 103 and at the outer three stations on Line 107.
e Oblique plankton tow to approximately 424 m (600 m of wire out, or less in shallow water) taken with a 30XXX net, 1.0 m in diameter at mouth by approximately 5 m in over-all length with detachable cod end of 56XXX nylon grit gauze.
f A total of 768 drift bottles were released, 12 per station except on Stations 83.90, 83.43, 63.90 and 63.52 where 12 ballasted bottles and 12 unballasted bottles were released in order to compare recovery rates of the two types.
g Surface horizontal plankton tows taken with standard one-meter net in various bays of Baja California (except one tow off Cape Blanco). The duration of each tow was approximately 10-1/2 hours.
h Shallow oblique plankton tows to various depths ranging from 14 to 102 m (30 to 150 m of wire out) taken with a standard one-meter net. Two tows were made in South Bay of Cedros Island and nine in Sebastián Vizcaino Bay.
i Net-tow observations at 10 m only.
j Six special shallow tows to depths ranging from 29 to 68 m (40 to 100 m of wire out) taken in the Sebastián Vizcaino Bay area with a standard one-meter net.
k Twelve ballasted and 12 unballasted bottles were released on each station except Stations 143.55 and 140.55.
l Twenty-four bottles (12 ballasted and 12 unballasted) were released at designated stations.

SIO

a Thermometer calibrations indicate the temperature accuracy to be 0.02°C; field tests indicate a salinity accuracy of ±0.025‰ (root mean square).
b A total of approximately 3000 GEK observations were made by the five ships which participated in this study of the North Equatorial Countercurrent.
c A 900-ft BT lowering was made on regular forenoon and regular night stations and every three hours while underway between forenoon stations.
d Oblique plankton tow to approximately 300 m (450 m of wire out, or less in shallow water) taken with a nonclosing 30XXX net, 1.0 m in diameter at mouth by approximately 5 m in over-all length with detachable cod end of 56XXX nylon grit gauze. A flowmeter mounted in the center of the mouth measured the volume of water filtered. Usual duration of haul was about 32 minutes.
e Upon departure from Clipperton Island observations were made at 4-hour intervals and were continued more or less routinely throughout the remainder of the expedition.
f Oblique shallow plankton haul (200 m of wire out) taken with a nonclosing 30XXX net, 1.0 m in in diameter at mouth by approximately 5 m in over-all length with detachable cod end of 56XXX nylon grit gauze. A flowmeter mounted in the center of the mouth measured the volume of water filtered. Usual duration of haul was about 14 minutes. On Stations 9, 11, 21, 26, 53 and 55, where the depth did not permit the shallow oblique haul, a subsurface shallow horizontal haul was made. The net was lowered to a depth close to the bottom, ranging from 12 to 63 m, and was towed horizontally.
g Surface horizontal plankton tow taken with a nonclosing 30XXX net, 1.0 m in diameter by approximately 5 m in over-all length with detachable cod end of 56XXX nylon grit gauze. A flowmeter mounted in the center of the mouth measured the volume of water filtered.

h Horizontal plankton hauls made at depths ranging from 12 to 373 m taken with a closing net lowered to the desired depth and opened by lowering a messenger, then closed by means of another messenger at the end of the haul before being brought to the surface. The nets are of 30XXX nylon grit gauze, 1.0 m in diameter at mouth by approximately 5 m in over-all length with detachable cod end of 56XXX nylon grit gauze with flowmeter mounted in mouth to measure the volume of water filtered.

i Micronekton (small nekton, 0.5-10 cm long) net hauls using a very large coarse-meshed plankton net hauled obliquely at about 5 kt. The net, about 20 ft in over-all length and of Marion Textiles pattern No. 467 nylon throughout, was fastened at the mouth of a 5-ft-square iron frame to which towing bridles and weights were attached to keep it upright in the water when underway; a detachable cod end of 56XXX nylon grit gauze formed the catching part of the assembly.

HBL

a One only in Nansen bottle at the surface; two per bottle at other depths.

b Oblique plankton hauls to 140 m, taken with a net 1.0 m in diameter at mouth and 0.656 mm in aperture size; duration, 30 minutes. Twenty-one hauls were made during the offshore survey and 18 between Honolulu and the Marquesas Islands.

c Current measurements with Roberts meter, each at 12 to 18 levels between 10-300 m.

d Surface plankton tows using a one-meter net; duration, 30 minutes.

e On a station to measure diurnal variability, 12 pairs of hauls were made, upper nets open, from 0-140 m, and lower nets closing, from 140-280 m; duration, 45 minutes to one hour. All nets were 1.0 m in diameter at mouth and 0.65 mm in aperture size.

f Salinity determinations by a modification of Fajan's adsorption indicator method developed and described by Van Landingham (1957) which is essentially a mixture of indicators for the Knudsen titration.

g The inorganic phosphate determinations were analyzed by the hydrazine sulphate modification of Denigès' method developed by Van Landingham (King et al., 1957). The determinations for Stations 1 to 11 were made with the Automatic Servo-operated Photometer described by Wooster and Rakestraw (1951). After Station 11 this instrument failed and a Beckman photometer was used.

h Oblique plankton hauls to 140 m taken with a net 1.0 m in diameter at mouth and 0.65 mm in aperture size; duration, 30 minutes.

i Surface plankton tows using a net 1.0 m in diameter at mouth and 0.65 mm in aperture size (656 Nitex netting); duration, 20 minutes.

j Surface plankton tows using a net 45 cm in diameter at mouth and 0.30 mm in aperture size (303 Nitex netting).

HBL/IGY

a Oblique plankton hauls, 0 to 60 m, taken with a net 1.0 m in diameter at mouth; duration, approximately 30 minutes.

b Surface plankton tow using a Clarke-Bumpus sampler; duration, approximately 30 minutes.

SBL

a Vertical plankton hauls, 150 m to surface, taken with a standard half-meter net of No. 6 mesh at a speed of about 50 m per minute.

b In bottom six bottles.

c Vertical plankton hauls, 300 m to surface, taken with a standard half-meter net of No. 6 mesh at a speed of about 50 m per minute.

d On approach to a fishing location, a reduced model of a modified Isaacs-Kidd trawl was towed at three kt at the surface or from the surface to four depths (25, 50, 100, 150 m) at 3-minute intervals for a total of 15 minutes, at which time the vessel was stopped and the trawl retrieved. A total of 26 hauls were made by MV Attu: 16 at the surface and 10 stepped-trawl hauls from the surface to 150 m. A total of 41 hauls were made by MV Pioneer: 22 at the surface, 2 stepped-trawl hauls from the surface to 50 m, 7 stepped-trawl hauls from the surface to 100 m, 10 stepped-trawl hauls from the surface to 150 m.

e The otter trawls were towed on a straight-line course at approximately 3 miles per hour for 1-hour periods at stations spaced at 20-mile intervals throughout the area. The trawl used was a standard "400 mesh eastern" type with a 94-foot-long footrope. To assure the retention of smaller organisms, the trawl was modified by inserting a 1-1/2-inch mesh lining at the cod end. The box-type dredge was used for additional sampling at some stations. The galvanized screening of the dredge had four openings to the inch; in addition, it was lined with 1/8-inch mesh netting (McLaughlin, 1963).

POG

a Salinity samples analyzed ashore in a modified Wenner-Smith-Soule salinity bridge (Strickland, 1958a, b).

b Chemical analyses aboard ship (Strickland, 1958a).

c Unprotected thermometers used below 300 m.

d BT observations every three hours to and from station, weather permitting, to a depth of 900 ft. On-station lowerings at 0200 and 1700 GCT daily (except on P-58-1, at 0000 and 1700 GCT). On P-58-1, one 72-hour series of hourly lowerings and one 48-hour series of 2-hourly lowerings; on P-58-2, one 72-hourly series of hourly lowerings; on P-58-3, three hourly series for 25, 13 and 51 hours; on P-58-4, two 25-hour series and one 50-hour series of hourly observations.

e Vertical tows made twice a week from a depth of 150 m; vertical tows from depths of 500, 300, 200, 150 and 50 m to the surface were made in the morning and also in the evening twice during each cruise. Horizontal tows were made at the surface every two hours for 24 hours twice on each cruise, towed for one-half hour at a speed of from 2 to 4 kt. For these PAPA hauls a one-half-meter-diameter nylon net of 0.33-mm mesh size (standard NORPAC net) was used.

f Dodimead and Hollister (1958).

g Salinity determinations by conductivity salinometer (Strickland, 1958a).

h Up to Station 81, BT observations were made to 900 ft at each station and between stations separated by more than 30 miles. (At Sta. 82 the last working BT was lost.)

i An unprotected thermometer was used on the 300-m bottle of the first cast. At least four, and as many as six, were used on the second cast until five were lost at Station 72. One was used on the deep cast of the remaining stations.

j Up to Station 80, vertical plankton tows from 150 m to the surface were made using a one-half-meter-diameter nylon net of 0.33-mm mesh size (NORPAC net). The rate of haul-in was one-half to one meter per second. (Plankton hauls were suspended at Sta. 80 because no sounding weight heavy enough to haul down the net was available.)

k Salinity samples were analyzed in a conductivity salinometer (Paquette, 1958; Strickland, 1958a). Salinities were determined to three decimal places, but values have been smoothed to two places.

l On-station lowerings. One 11-hour series of observations taken every 20 minutes along latitude 48°20'N between 137° to 135°W.

m Vertical plankton tow from 150 m to the surface using a half-meter-diameter nylon net of 0.33-mm mesh size (standard NORPAC net). The rate of haul-in was one meter per second.

n Salinity determinations were done either on board ship during the survey or at the Nanaimo laboratory, using a conductivity salinometer (Paquette, 1958; Strickland, 1958a).

o At hourly and 2-hourly intervals. One 12-hour hourly series taken on the half hour.

p Salinity determinations aboard ship immediately following the completion of station observations, using a modified Wenner-Smith-Soule salinometer (Strickland, 1958a, b).

q On station and when light-attenuation measurements were attempted. Extra lowerings were made when any strongly marked thermocline or inversion was indicated. Both 450-ft and 900-ft instruments were used, depending upon water depth.

r Fjarlie reversing bottles were used (Fjarlie, 1953), and on each cast five 5-liter Van Dorn bottles (Van Dorn, 1956) were used to obtain samples for such determinations as particulate phosphorus and iron. On all stations a deep sample was taken with a Van Dorn bottle.

s Method described by Strickland (1958b).

t Determination of salinity aboard ship using a conductivity salinometer (Strickland, 1958a).

u A 900-ft BT lowering at each station and one midway between stations.

v One unprotected thermometer at 300 m on the first cast; three on second cast at top, bottom and at an intervening depth.

w Determination of salinity aboard ship using a conductivity salinometer (Strickland, 1958a, b). but tabulated to two decimal places only.

x A BT lowering at each station and during the run between stations. One 12-hour series of observations taken every 20 minutes.

y A BT lowering immediately after the hydrographic cast at each station and, in addition, between stations on the seaward end of the three northern 200-mile sections.

USNOO

a Plankton tows using half-meter net.

UW

a Dissolved oxygen by the modified Winkler method described by Thompson and Robinson (1939).

b Dissolved inorganic phosphate by the method of Robinson and Thompson (1948) as modified by Wooster and Rakestraw (1951), using a Beckman Model DU Spectrophotometer. A constant-temperature bath was used to bring all phosphate samples and standards to a uniform temperature of about 27°C. The use of this bath eliminated errors in the determination due to temperature fluctuation. Values have been corrected for salt error. The accuracy is estimated to be ±10 per cent.

c Vertical plankton tow, 200 m to surface, taken with a half-meter net of No. 6 mesh size. Duration of haul was 10 minutes.

d Oblique plankton tow, 200 m to surface, taken with a Clarke-Bumpus sampler of No. 6 mesh size. Duration of haul was 10 minutes.

e Salinity determinations by conductivity measurements made on shipboard with the modified Wenner-Smith-Soule salinity bridge (Paquette, 1958). Values are tabulated to two places only. Such values have a reproducibility of ±0.004‰ salinity at the 95 per cent probability level and a probable accuracy of ±0.01‰ salinity or better at the same level of probability.

f Lowering with 450- or 900-ft BT at 2-hour intervals except on part of the return leg when observations were made every 3 hours.

g Dissolved oxygen by the modified Winkler method described by Thompson and Robinson (1939). Standardizations were made using potassium bi-iodate. The accuracy is estimated to be 0.06 ml/L. Because there has been some deterioration of the tin coating on the sampling bottles, small negative errors are likely at the greatest depths when hydrographic casts were prolonged.

h Dissolved inorganic phosphate by the method described by Robinson and Thompson (1948) as modified by Wooster and Rakestraw (1951). Measurements were made with a Lumetron Model 402-E Colorimeter using 15-cm cells. Values have been corrected for salt error. Accuracy is estimated to be ±10 per cent.

i Vertical plankton tow, 200 m to surface, taken with a half-meter net of No. 6 mesh size. Duration of haul was 15 minutes.

j Inorganic silicate determinations were made immediately after collection by a spectrophotometric modification of Atkins method as applied to sea water. The data are corrected for salt effect and the precision is within ±5 per cent.

k Vertical plankton tow, 400 m to surface, taken with a half-meter net of No. 6 mesh size. Duration of haul was 30 minutes.

l The pH measurements were conducted electrometrically using a Beckman Model G pH Meter and a probe glass electrode and saturated half-cell calomel-electrode assembly. The method was adapted for use aboard ship. The precision of replicate samples in the shore laboratory is ±0.02 pH units. The precision aboard ship in the field is within ±0.04 pH units.

m Oblique plankton tow, 200 m to surface, taken with a Clarke-Bumpus sampler of No. 6 mesh size. Duration of haul was 10 to 25 minutes.

n Alkalinity determinations were made using the method described by Anderson and Robinson (1946) of excess acid and electrometric determination of the pH after converting all carbonates and bicarbonates to carbonic acid.

o Salinity determinations by University of Washington-Pacific Naval Laboratory salinometer which is a modification of the Wenner-Smith-Soule salinity bridge (Paquette, 1958). All values reported are the means of duplicates. Such values have a reproducibility of ±0.004‰ salinity at the 95 per cent probability level and a probable accuracy of ±0.01‰ salinity or better at the same level of probability.

p Dissolved inorganic phosphate by the method of Robinson and Thompson (1948), as modified by Wooster and Rakestraw (1951), using either a Lumetron Model 402-E Colorimeter or a Beckman Model DU Spectrophotometer. The colorimeter in use aboard ship broke down and could not be repaired at sea after the samples from Stations 1 through 7 had been analyzed. For the remainder of the cruise each phosphate sample was "pickled" by adding three or four drops of chloroform and then frozen. Samples were analyzed ashore immediately on return to Seattle by spectrophotometer. Aboard ship a constant-temperature bath was used to bring all phosphate samples and standards to a uniform temperature of about 27°C and thereby eliminate errors in determination due to temperature fluctuation. Values have been corrected for salt error. Accuracy is estimated to be ±10 per cent.

q Vertical plankton tow, 200 m to surface, taken with a half-meter net of No. 6 mesh size. Duration of haul was 15 to 20 minutes.

r Oblique plankton tow, 200 m to surface, taken with a Clarke-Bumpus sampler of No. 6 mesh size. Duration of tow was 15 minutes.

Bibliography

LITERATURE CITED IN THIS VOLUME

ANDERSON, DON H., and REX J. ROBINSON
1946 Rapid electrometric determination of the alkalinity of sea water. Industr. Engng. Chem., Analyt. Ed. (Analyt. Chem.), 18(12): 767

AUSTIN, THOMAS S.
1962 Amendment to the correction in Deep-Sea Research, volume 8, No. 2, p. 152. Deep-Sea Res., 9(1): 75-76

BLACKBURN, MAURICE, RAYMOND C. GRIFFITHS, ROBERT W. HOLMES and WILLIAM H. THOMAS
1962 Physical, chemical, and biological observations in the eastern tropical Pacific Ocean: three cruises to the Gulf of Tehuantepec, 1958-59. Spec. sci. Rep. U. S. Fish Wildl. Serv., Fish. No. 420: 1-170

CARRITT, DAYTON E., and JAMES H. CARPENTER
1959 The composition of sea water and the salinity-chlorinity-density problems. Proc. Conf. phys. chem. Prop. Sea Water, NAS-NRC Publ. 600: 67-86

DODIMEAD, A. J., and H. J. HOLLISTER
1958 Progress report of drift bottle releases in the northeast Pacific Ocean. J. Fish. Res. Bd. Canada, 15(5): 851-865

ECKART, CARL
1958 Properties of water, part II. The equation of state of water and sea water at low temperatures and pressures. Amer. J. Sci., 256(4): 225-240

EKMAN, V. WALFRID
1908 Die Zusammendrückbarkeit des Meerwassers nebst einigen Werten für Wasser und Quecksilber. Publ. Circ. Cons. int. Explor. Mer, No. 43: 1-47

FAVORITE, FELIX, and GLENN PEDERSEN
1959 North Pacific and Bering Sea oceanography, 1958. Spec. sci. Rep. U. S. Fish Wildl. Serv., Fish. No. 312: 1-230

FJARLIE, R. L. I.
1953 A seawater sampling bottle. J. Mar. Res., 12(1): 21-30

FOFONOFF, N. P., and C. FROESE
1958 Program for oceanographic computations and data processing on the electronic digital computer ALWAC III-E. PSW-1 Programs for properties of sea water. Fish. Res. Bd. Canada, MS Rep. Ser. (Oceanogr. Limnol.), No. 27: 1-39

FOFONOFF, N. P., and S. TABATA
1958 Program for oceanographic computations and data processing on the electronic digital computer ALWAC III-E. DP-1 Oceanographic station data program. Fish. Res. Bd. Canada, MS Rep. Ser. (Oceanogr. Limnol.), No. 25: 1-38

HOLMES, ROBERT W., and MAURICE BLACKBURN
1960 Physical, chemical, and biological observations in the eastern tropical Pacific Ocean, SCOT Expedition, April-June 1958. Spec. sci. Rep. U. S. Fish Wildl. Serv., Fish. No. 345: 1-106

KING, JOSEPH E., THOMAS S. AUSTIN and MAXWELL S. DOTY
1957 Preliminary report on Expedition EASTROPIC. Spec. sci. Rep. U. S. Fish Wildl. Serv., Fish. No. 201: 1-155

KNUDSEN, MARTIN
1901 Hydrographical tables. Copenhagen, G. E. C., GAD.: 1-63

McLAUGHLIN, PATSY A.
1963 Survey of the benthic invertebrate fauna of the eastern Bering Sea. Spec. sci. Rep. U. S. Fish Wildl. Serv., Fish. No. 401: 1-75

MONTGOMERY, R. B., and WARREN S. WOOSTER
1954 Thermosteric anomaly and the analysis of serial oceanographic data. Deep-Sea Res., 2(1): 63-70

NATIONAL OCEANOGRAPHIC DATA CENTER
1962 Processing physical and chemical data from oceanographic stations. Manual Ser., Publ. M-2: 1-105

PAQUETTE, ROBERT G.
1958 A modification of the Wenner-Smith-Soule salinity bridge for the determination of salinity in sea water, with details of construction, operation, and maintenance. Univ. Wash., Dep. Oceanogr., Tech. Rep. No. 61: 1-58
POLLAK, MARTIN J.
1961 Units for specific volume of sea water. J. Mar. Res., 19(1): 28-29
REID, R. O.
1959 Influence of some errors in the equation of state or in observations on geostrophic currents. Proc. Conf. phys. chem. Prop. Sea Water, NAS-NRC Publ. 600: 10-29
ROBINSON, REX J., and THOMAS G. THOMPSON
1948 The determination of phosphates in sea water. J. Mar. Res., 7(1): 33-41
STRICKLAND, J. D. H.
1958a Standard methods of seawater analyses, Volume I. A reprinting including recent addenda. Fish. Res. Bd. Canada, MS Rep. Ser. (Oceanogr. Limnol.), No. 18: 1-143
1958b Standard methods of seawater analyses, Volume II. Fish. Res. Bd. Canada, MS Rep. Ser. (Oceanogr. Limnol.), No. 19: 1-78
SVERDRUP, H. U., MARTIN W. JOHNSON and RICHARD H. FLEMING
1946 The oceans, their physics, chemistry, and general biology. New York, Prentice-Hall, Inc.: 1-1087
TABATA, SUSUMU, and G. L. PICKARD
1957 The physical oceanography of Bute Inlet. J. Fish. Res. Bd. Canada, 14(4): 487-520
THOMPSON, THOMAS G., and REX J. ROBINSON
1939 Notes on the determination of dissolved oxygen in sea water. J. Mar. Res., 2(1): 1-8
UNITED STATES NAVAL OCEANOGRAPHIC OFFICE
Oceanographic data report, Arctic, 1958. Mar. Sci. Dep., Mar. Surveys Div., Oceanogr. Branch, Informal MS Rep. No. O-26-63, June 1963, unpublished manuscript
UNITED STATES NAVY HYDROGRAPHIC OFFICE (U. S. NAVAL OCEANOGRAPHIC OFFICE)
1960 Manual for coding and punching oceanographic data on cards (oceanographic station data). Hydrogr. Off. Spec. Publ. 12(part III): 1-22
VAN DORN, W. G.
1956 Large-volume water samplers. Trans. Amer. Geophys. Un., 37(6): 682-684
VAN LANDINGHAM, JOHN W.
1957 A modification of the Knudsen method for salinity determination. J. Cons. int. Explor. Mer, 22(2): 174-179
WOOSTER, WARREN S., and NORRIS W. RAKESTRAW
1951 The estimation of dissolved phosphate in sea water. J. Mar. Res., 10(1): 91-100
WOOSTER, WARREN S., and BRUCE A. TAFT
1958 On the reliability of field measurements of temperature and salinity in the ocean. J. Mar. Res., 17: 552-566

PUBLICATIONS IN WHICH USE WAS MADE OF DATA COLLECTED ON THE CRUISES PRESENTED IN THIS VOLUME

AHLSTROM, ELBERT H.
1960 Fish spawning in 1957 and 1958. In Calif. Cooperative Fish. Invest., Reps., 1 January 1958 to 30 June 1959, Part II, Symp. "The changing Pacific Ocean in 1957 and 1958," eds. Oscar E. Sette and John D. Isaacs, Mar. Res. Comm., 7: 173-179
ALVARIÑO, ANGELES
1961 Two new chaetognaths from the Pacific. Pacif. Sci., 15(1): 67-77
1962a Taxonomic revision of Sagitta robusta and Sagitta ferox Doncaster, and notes on their distribution in the Pacific. Pacif. Sci., 16(2): 186-201
1962b Two new Pacific chaetognaths, their distribution and relationship to allied species. Bull. Scripps Instn. Oceanogr., 8(1): 1-50
Bathymetric distribution of chaetognaths. Pacif. Sci., 18(1) (in press)
The chaetognaths of the Monsoon Expedition in the Indian Ocean. Pacif. Sci. (in press)

ARON, WILLIAM
1962 The distribution of animals in the eastern North Pacific and its relationship to physical and chemical conditions. J. Fish. Res. Bd. Canada, 19(2): 271-314
ARTHUR, ROBERT S.
1960 Variation in sea temperature off La Jolla. J. Geophys. Res., 65(12): 4081-4086
AUSTIN, THOMAS S.
1959 Secular warming in sea surface temperatures, equatorial Pacific, 1955-1958. Proc. Hawaiian Acad. Sci., Thirty-fourth Annual Meeting, 1958-1959: 21
BALECH, ENRIQUE
1960 The changes in the phytoplankton population off the California coast. In Calif. Cooperative Fish. Invest., Reps., 1 January 1958 to 30 June 1959, Mar. Res. Comm., 7: 127-132
BERNER, LEO D.
1960 Unusual features in the distribution of pelagic tunicates in 1957 and 1958. In Calif. Cooperative Fish. Invest., Reps., 1 January 1958 to 30 June 1959, Mar. Res. Comm., 7: 133-135
BERNER, LEO D., and JOSEPH L. REID, JR.
1961 On the response to changing temperature of the temperature-limited plankter Doliolum denticulatum Quoy and Gaimard 1835. Limnol. Oceanogr., 6(2): 205-215
BIEN, G. S., N. W. RAKESTRAW and H. E. SUESS
1960 Radiocarbon concentration in Pacific Ocean water. Tellus, 12(4): 436-443
BLACKBURN, MAURICE
1962 An oceanographic study of the Gulf of Tehuantepec. Spec. sci. Rep. U. S. Fish Wildl. Serv., Fish. No. 404: 1-28
BLACKBURN, MAURICE, and ASSOCIATES
1962 Tuna oceanography in the eastern tropical Pacific. Spec. sci. Rep. U. S. Fish Wildl. Serv., Fish. No. 400: 1-48
BLACKBURN, MAURICE, RAYMOND C. GRIFFITHS, ROBERT W. HOLMES and WILLIAM H. THOMAS
1962 Physical, chemical, and biological observations in the eastern tropical Pacific Ocean: three cruises to the Gulf of Tehuantepec, 1958-1959. Spec. sci. Rep. U. S. Fish Wildl. Serv., Fish. No. 420: 1-170
BOGDANOV, K. T.
1961 Water circulation in the Gulf of Alaska and its seasonal variability. Okeanologiya, 1(5): 815-824 (Russian-English translation in Deep-Sea Res., 10(4): 479-487, 1962)
BOYD, CARL M., and MARTIN W. JOHNSON
1963 Variations in the larval stages of a decapod crustacean, Pleuroncodes planipes Stimpson (Galatheidae). Biol. Bull., 124(3): 141-152
BRINTON, EDWARD
1960 Changes in the distribution of euphausiid crustaceans in the region of the California Current. In Calif. Cooperative Fish. Invest., Reps., 1 January 1958 to 30 June 1959, Mar. Res. Comm., 7: 137-146
1962a The distribution of Pacific euphausiids. Bull. Scripps Instn. Oceanogr., 8(2): 51-269
1962b Two new species of Euphausiacea, Euphausia nana and Stylocheiron robustum from the Pacific. Crustaceana, 4(3): 167-179
DODIMEAD, A. J.
1961 Some features of the upper zone of the sub-Arctic Pacific Ocean. Int. N. Pacif. Fish. Comm., Bull. No. 3: 11-24
DODIMEAD, A. J., and H. J. HOLLISTER
1958 Progress report of drift bottle releases in the northeast Pacific Ocean. J. Fish. Res. Bd. Canada, 15(5): 851-865
DODIMEAD, A. J., F. FAVORITE and T. HIRANO
1963 A review of the oceanography of the Subarctic Pacific region. Int. N. Pacif. Fish. Comm., Bull. No. 13: 1-195
FAVORITE, FELIX
1961 Surface temperature and salinity off the Washington and British Columbia coasts, August, 1958 and 1959. J. Fish. Res. Bd. Canada, 18(3): 311-319

FAVORITE, FELIX, and MITCHELL G. HANAVAN
1963 Oceanographic conditions and salmon distribution south of the Alaska Peninsula and Aleutian Islands, 1956. Int. N. Pacif. Fish. Comm., Bull. No. 11: 57-72

FAVORITE, FELIX, and GLENN PEDERSEN
1959 North Pacific and Bering Sea oceanography, 1958. Spec. sci. Rep. U. S. Fish Wildl. Serv., Fish. No. 312: 1-230

FISHER, ROBERT L.
1961 Middle America Trench: topography and structure. Bull. Geol. Soc. Amer., 72(5): 703-720

GOLDBERG, EDWARD D., and ROBERT H. PARKER
1960 Phosphatized wood from the Pacific sea floor. Bull. Geol. Soc. Amer., 71: 631-632

GRAHAM, JOSEPH J., and JAMES W. McGARY
1961 Investigation of the potential albacore resource of the central North Pacific. Comm. Fish. Rev., 23(11): 1-7

HOLMES, ROBERT W., and MAURICE BLACKBURN
1960 Physical, chemical, and biological observations in the eastern tropical Pacific Ocean, SCOT Expedition, April-June 1958. Spec. sci. Rep. U. S. Fish Wildl. Serv., Fish. No. 345: 1-106

HUBBS, C. L., and G. I. RODEN
Oceanography and marine life along the Pacific coast of Middle America. In Handbook of Middle American Indians. Middle Amer. Res. Inst., Tulane Univ., New Orleans, La. (in press)

ISAACS, JOHN D., and OSCAR E. SETTE
1959 Unusual conditions in the Pacific. Science, 129(3351): 787-788

JENNINGS, FEENAN, and RICHARD A. SCHWARTZLOSE
1960 Measurements of the California Current in March 1958. Deep-Sea Res., 7(1): 42-47

KNAUSS, JOHN A.
1959 The Cromwell Current. Doctoral Dissertation, Scripps Instn. Oceanogr., Univ. Calif.: 1-49
1960a Equatorial currents. Trans. Amer. Geophys. Un., 41(2): 255-257
1960b Measurements of the Cromwell Current. Deep-Sea Res., 6(4): 265-286
1961 The structure of the Pacific equatorial countercurrent. J. Geophys. Res., 66(1): 143-155
1962 On some aspects of the deep circulation of the Pacific. J. Geophys. Res., 67(10): 3943-3954

KNAUSS, JOHN A., and JOSEPH E. KING
1958 Observations of the Pacific Equatorial Undercurrent. Nature, 182(4635): 601-602

KNAUSS, JOHN A., and ROBERT O. PEPIN
1959 Measurements of the Pacific Equatorial Countercurrent. Nature, 183(4658): 380

LaFOND, E. C.
1959 Slicks and temperature structure in the sea. U. S. N. Electronics Lab., San Diego, NEL Rep. No. 937: 1-35

LANE, R. K.
1962 A review of the temperature and salinity structures in the approaches to Vancouver Island, British Columbia. J. Fish. Res. Bd. Canada, 19(1): 45-91
1963 A model of seawater structure near the west coast of Vancouver Island, British Columbia. J. Fish. Res. Bd. Canada, 20(4): 939-967

McALLISTER, C. D.
1961 Zooplankton studies at Ocean Weather Station "P" in the northeast Pacific Ocean. J. Fish. Res. Bd. Canada, 18(1): 1-29

McGARY, JAMES W., and JOSEPH J. GRAHAM
1960 Biological and oceanographic observations in the central North Pacific July-September, 1958. Spec. sci. Rep. U. S. Fish Wildl. Serv., Fish. No. 358: 1-107

McLAUGHLIN, PATSY A.
1963 Survey of the benthic invertebrate fauna of the eastern Bering Sea. Spec. sci. Rep. U. S. Fish Wildl. Serv., Fish. No. 401: 1-75

MENARD, H. W.
1959 Geology of the Pacific sea floor. Experimentia, 15(6): 205-213
RATTRAY, MAURICE, JR.
1962 Interpolation errors and oceanographic sampling. Deep-Sea Res., 9: 25-37
RATTRAY, MAURICE, JR., CUTHBERT M. LOVE and DIANE E. HEGGARTY
1962 Distribution of physical properties below the level of seasonal influence in the eastern North Pacific Ocean. J. Geophys. Res., 67(3): 1099-1107
REID, JOSEPH L., JR.
1960a Oceanography of the northeastern Pacific Ocean during the last ten years. In Calif. Cooperative Fish. Invest., Reps., 1 January 1958 to 30 June 1959, Mar. Res. Comm., 7: 77-90
1960b Pacific Ocean. In McGraw-Hill encyclopedia of science and technology. New York, McGraw-Hill Book Company, Inc., 9: 483-488
1961a On the geostrophic flow at the surface of the Pacific Ocean with respect to the 1,000-decibar surface. Tellus, 13(4): 489-502
1961b On the temperature, salinity, and density differences between the Atlantic and Pacific oceans in the upper kilometre. Deep-Sea Res., 7(4): 265-275
1962a Distribution of dissolved oxygen in the summer thermocline. J. Mar. Res., 20(2): 138-148
1962b On the circulation, phosphate-phosphorus content and zooplankton volumes in the upper part of the Pacific Ocean. Limnol. Oceanogr., 7(3): 287-306
On the formation and circulation of the Intermediate Water in the North and South Pacific oceans. (in press)
REID, JOSEPH L., JR., and RICHARD A. SCHWARTZLOSE
1962 Direct measurements of the Davidson Current off Central California. J. Geophys. Res., 67(6): 2491-2497
REID, JOSEPH L., JR., R. A. SCHWARTZLOSE and D. M. BROWN
1964 Direct measurements of a small eddy off northern Baja California. J. Mar. Res., 21(3): 205-218
RODEN, G. I.
1962 Oceanographic aspects of the eastern equatorial Pacific. Geofis. Int., 2(4): 77-92
1963 On sea level, temperature and salinity variations in the tropical Pacific and in Pacific Ocean islands. J. Geophys. Res., 68(2): 455-472
Oceanographic aspects of the Gulf of California. In Gulf of California, Amer. Ass. Petrol. Geol. (in press)
RODEN, G. I., and G. W. GROVES
1959 Recent oceanographic investigations in the Gulf of California. J. Mar. Res., 18(1): 10-35
SCHWARTZLOSE, RICHARD A.
1963 Nearshore currents of the western United States and Baja California as measured by drift bottles. In Calif. Cooperative Fish. Invest., Reps., 1 July 1960 to 30 June 1962, Mar. Res. Comm., 9: 15-22
SETTE, OSCAR E., and JOHN D. ISAACS (EDITORS)
1960 Symposium on "The changing Pacific Ocean in 1957 and 1958." In Calif. Cooperative Fish. Invest., Reps., 1 January 1958 to 30 June 1959, Mar. Res. Comm., 7: 13-217
TABATA, SUSUMU
1960 Characteristics of water and variations of salinity, temperatures, and dissolved oxygen content of the water at Ocean Weather Station "P" in the northeast Pacific Ocean. J. Fish. Res. Bd. Canada, 17(3): 353-370
1961 Temporal changes of salinity, temperature, and dissolved oxygen content of the water at Station "P" in the northeast Pacific Ocean, and some of their determining factors. J. Fish. Res. Bd. Canada, 18(6): 1073-1124
TABATA, SUSUMU, and G. L. PICKARD
1957 The physical oceanography of Bute Inlet. J. Fish. Res. Bd. Canada, 14(4): 487-520
THRAILKILL, JAMES R.
1961 Zooplankton volumes off the Pacific coast, 1958. Spec. sci. Rep. U. S. Fish Wildl. Serv., Fish. No. 374: 1-70

TULLY, J. P., and F. G. BARBER
1960 An estuarine analogy in the sub-Arctic Pacific Ocean. J. Fish. Res. Bd. Canada, 17(1): 91-112

TULLY, J. P., A. J. DODIMEAD and S. TABATA
1960 An anomalous increase in the temperature in the ocean off the Pacific coast of Canada through 1957 and 1958. J. Fish. Res. Bd. Canada, 17(1): 61-80

UDA, MICHITAKA
1963 Oceanography of the Subarctic Pacific Ocean. J. Fish. Res. Bd. Canada, 20(1): 119-179

WILSON, ROBERT C., EUGENE L. NAKAMURA and HOWARD O. YOSHIDA
1958 Marquesas area fishery and environmental data, October 1957 - June 1958. Spec. sci. Rep. U. S. Fish Wildl. Serv., Fish. No. 283: 1-105

WOOSTER, WARREN S., and J. L. REID, JR.
1963 Eastern boundary currents. In The sea. New York, John Wiley and Sons (Interscience Publishers) 2: 253-280

WOOSTER, WARREN S., and BRUCE A. TAFT
1958 On the reliability of field measurements of temperature and salinity in the ocean. J. Mar. Res., 17: 552-566

WOOSTER, WARREN S., and GORDON H. VOLKMANN
1960 Indications of deep Pacific circulation from the distribution of properties at five kilometers. J. Geophys. Res., 65(4): 1239-1249

WYLLIE, JOHN G.
1961 The water masses of Sebastian Vizcaino Bay. In Calif. Cooperative Fish. Invest. Reps., 1 July 1959 to 30 June 1960, Mar. Res. Comm., 8: 83-93

ZoBELL, CLAUDE E.
1959 Thermal changes accompanying the compression of aqueous solutions to deep-sea conditions. Limnol. Oceanogr., 4(4): 463-471
1960 Marine pollution problems in the southern California area. Trans. Second Seminar Biol. Problems in Water Pollution, April 20-24, 1959, U. S. Public Health Serv., Robert A. Taft Sanitary Engng. Center: 177-183

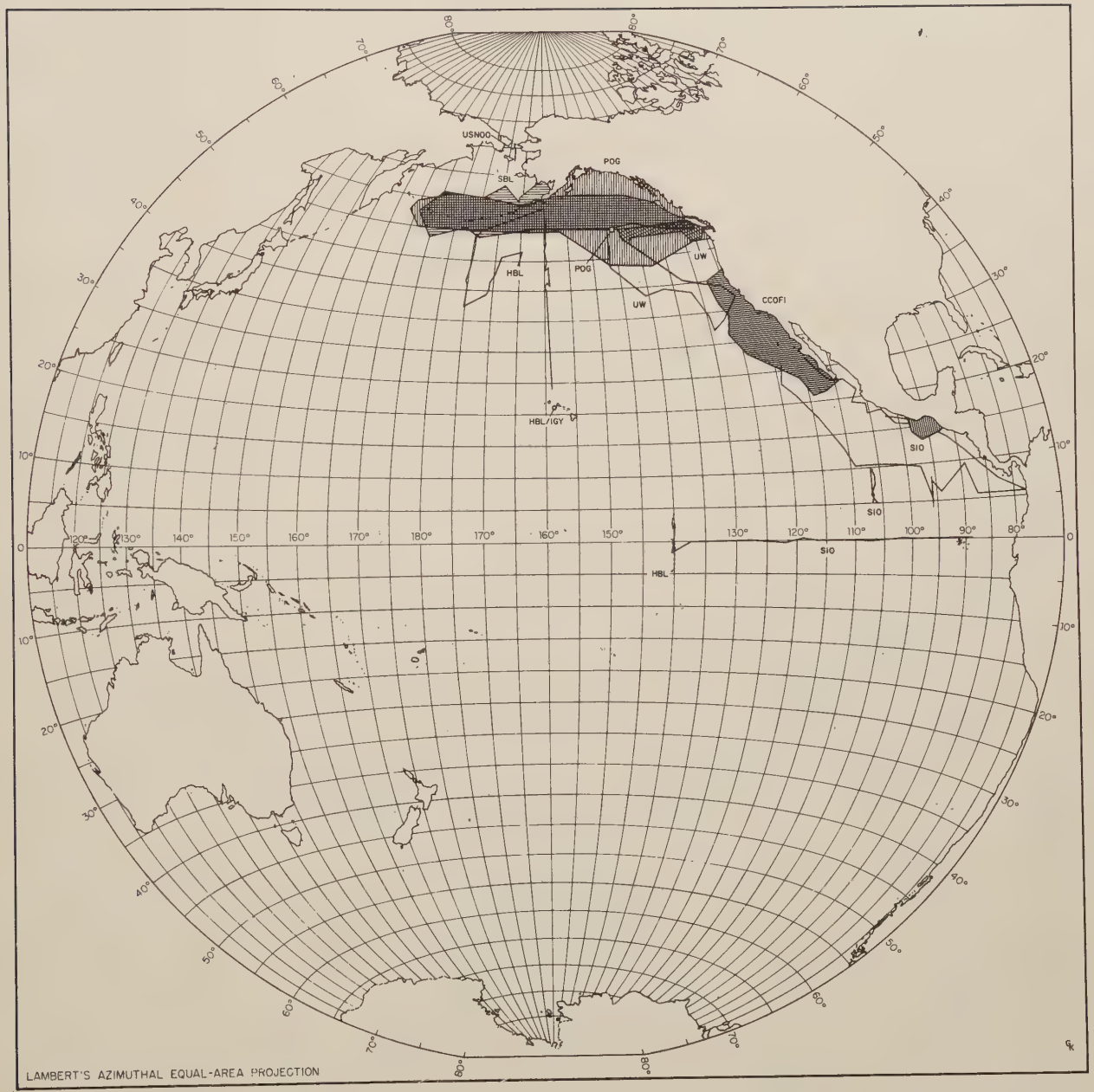


CHART 1. General location chart

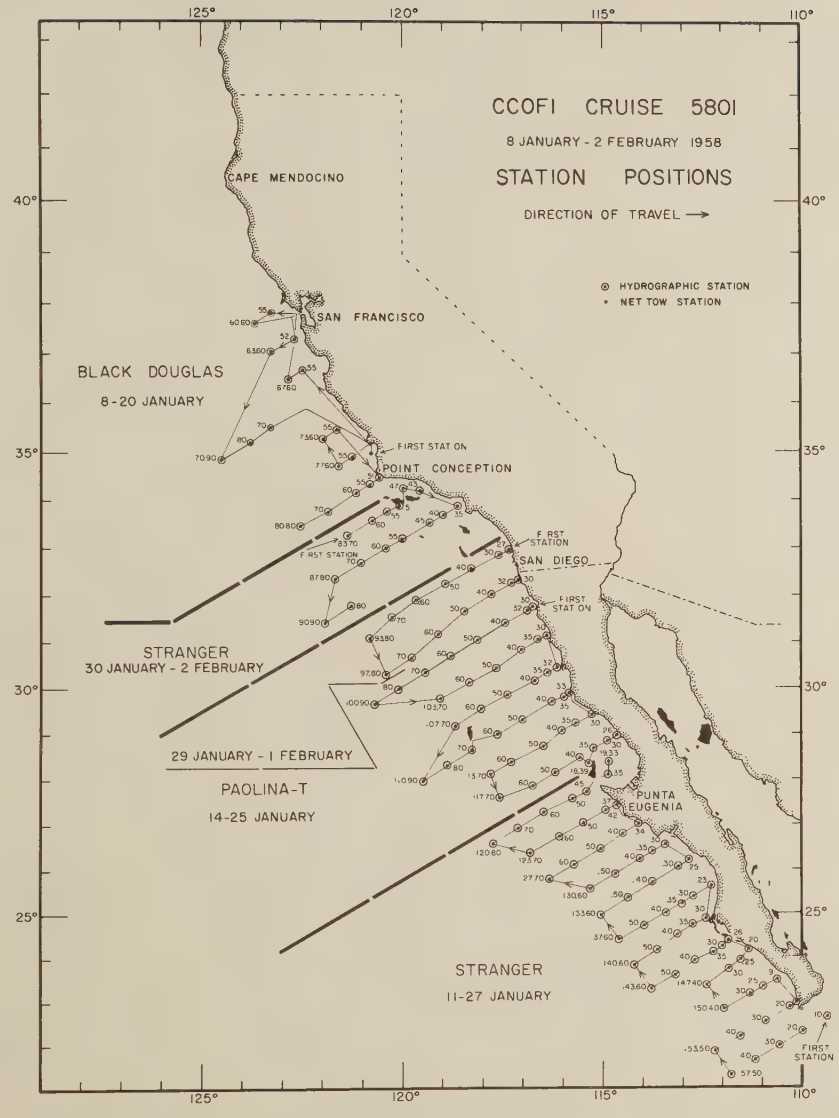


CHART 2. Station positions, CCOFI, Cruise 5801

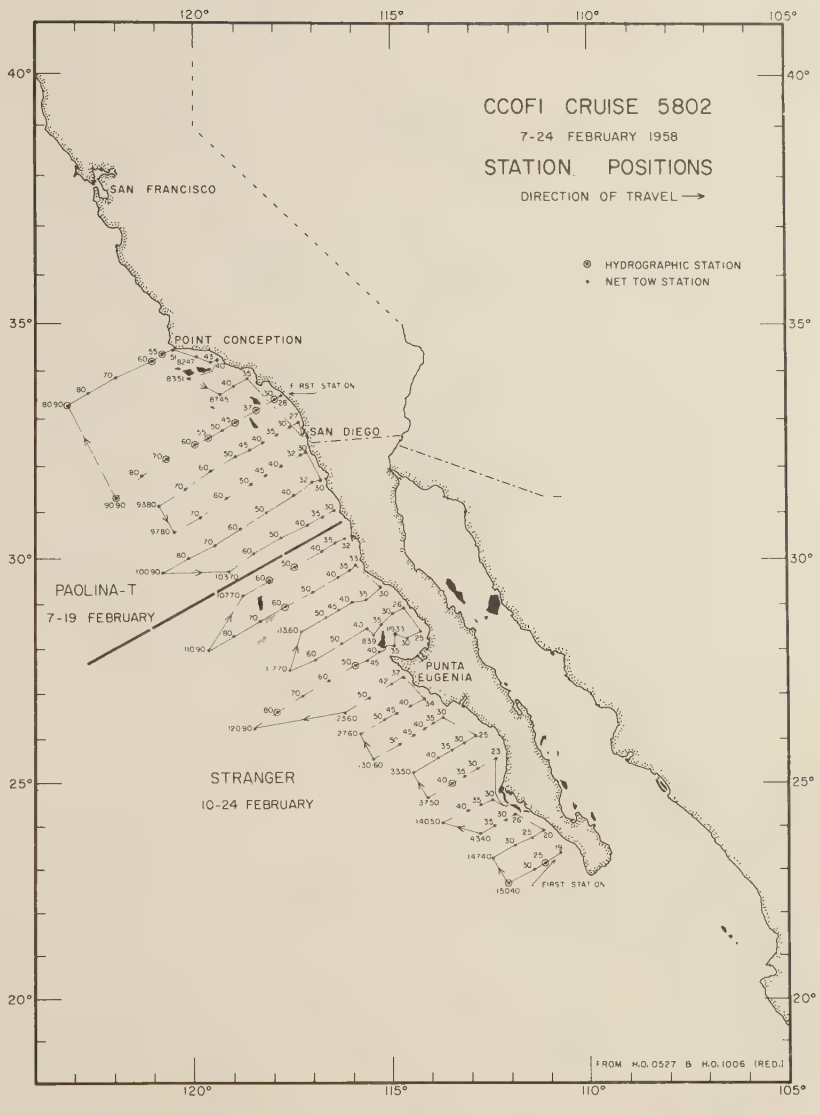


CHART 3. Station positions, CCOFI, Cruise 5802

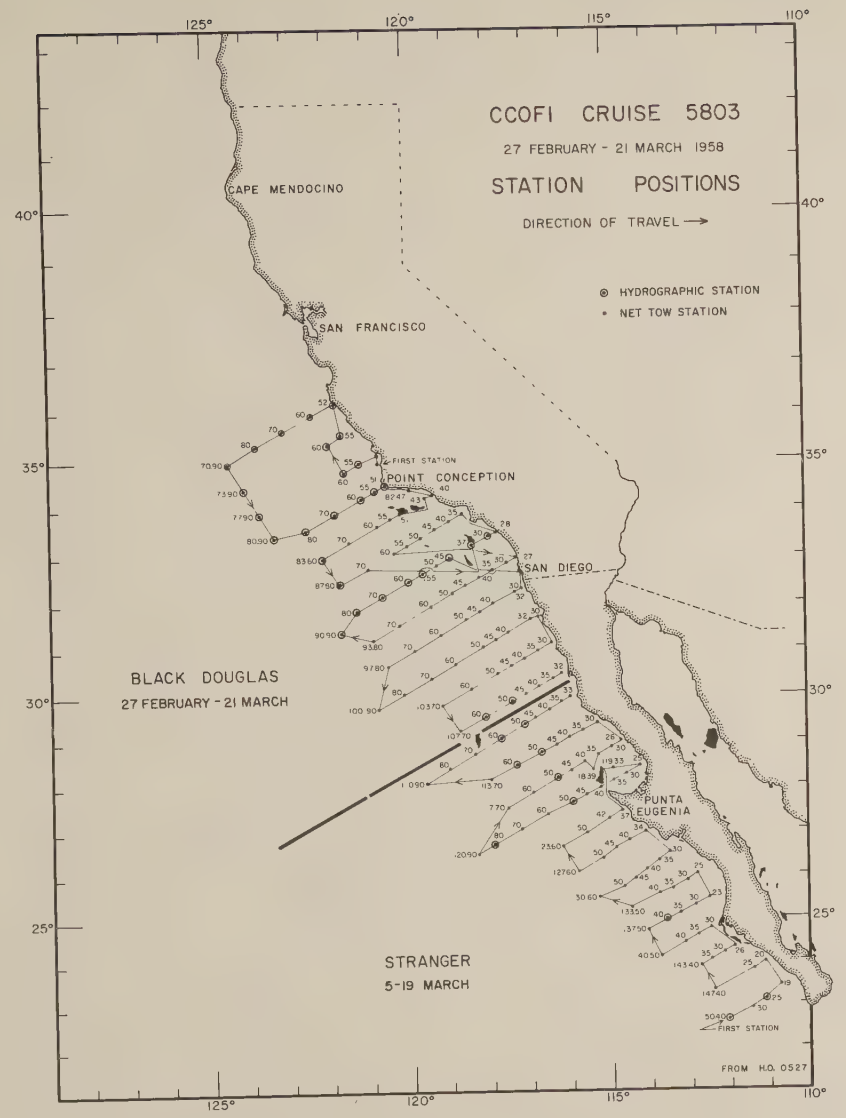


CHART 4. Station positions, CCOFI, Cruise 5803

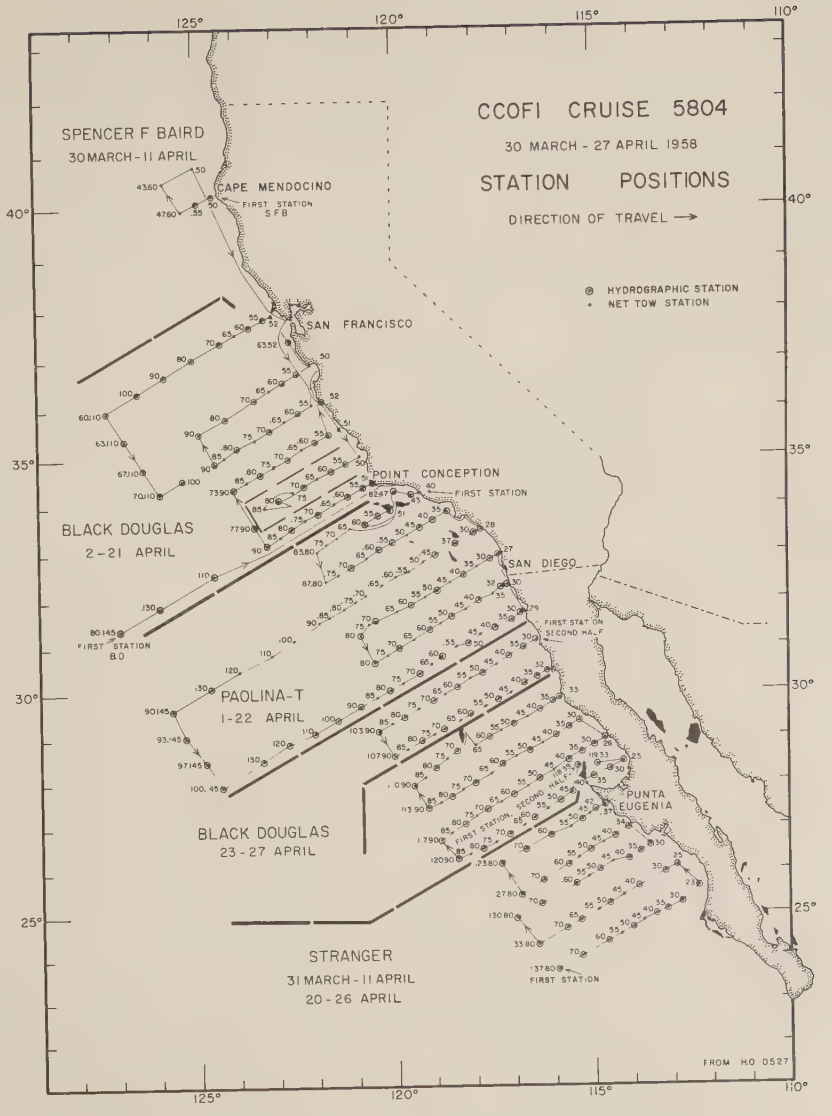


CHART 5. Station positions, CCOFI, Cruise 5804

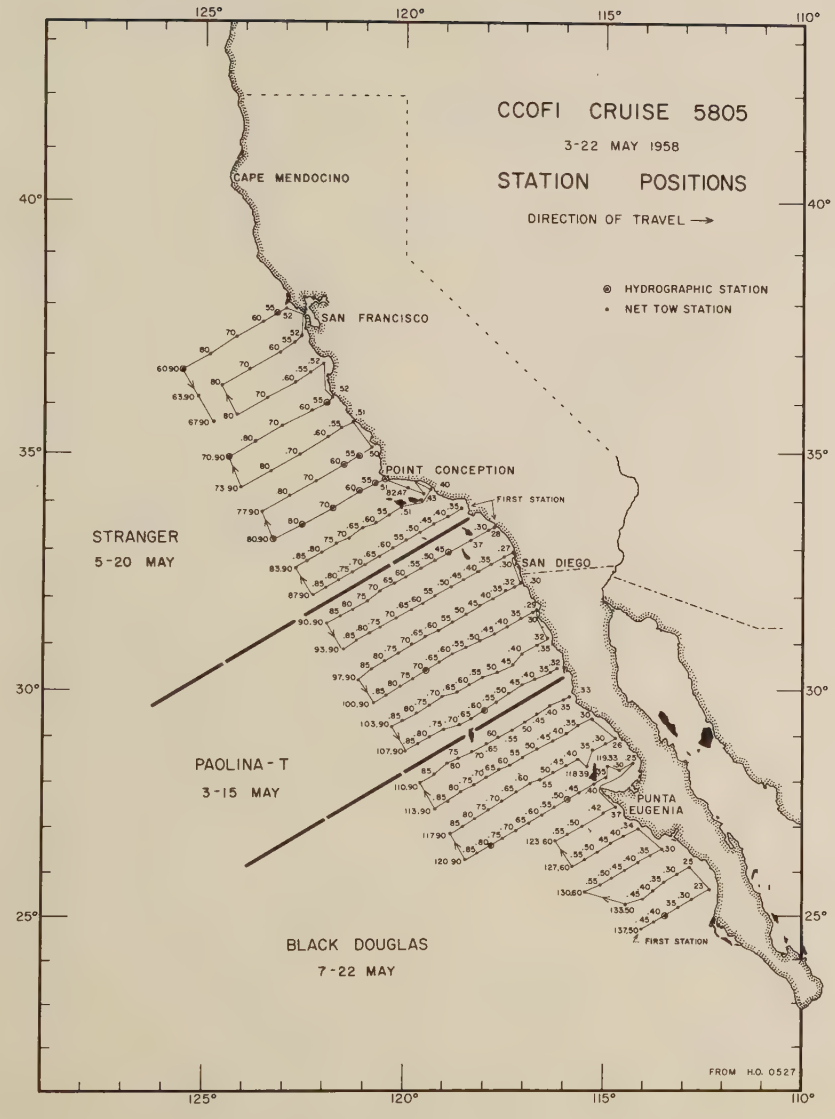


CHART 6. Station positions, CCOFI, Cruise 5805

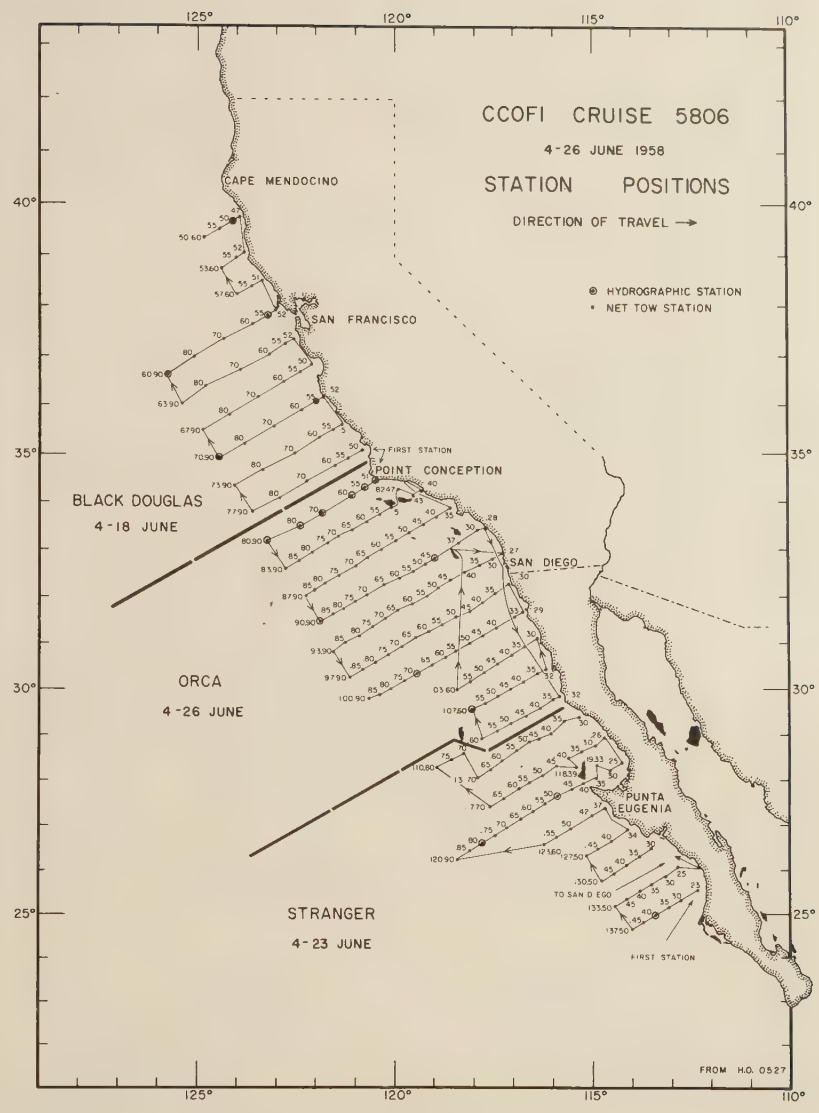


CHART 7. Station positions, CCOFI, Cruise 5806

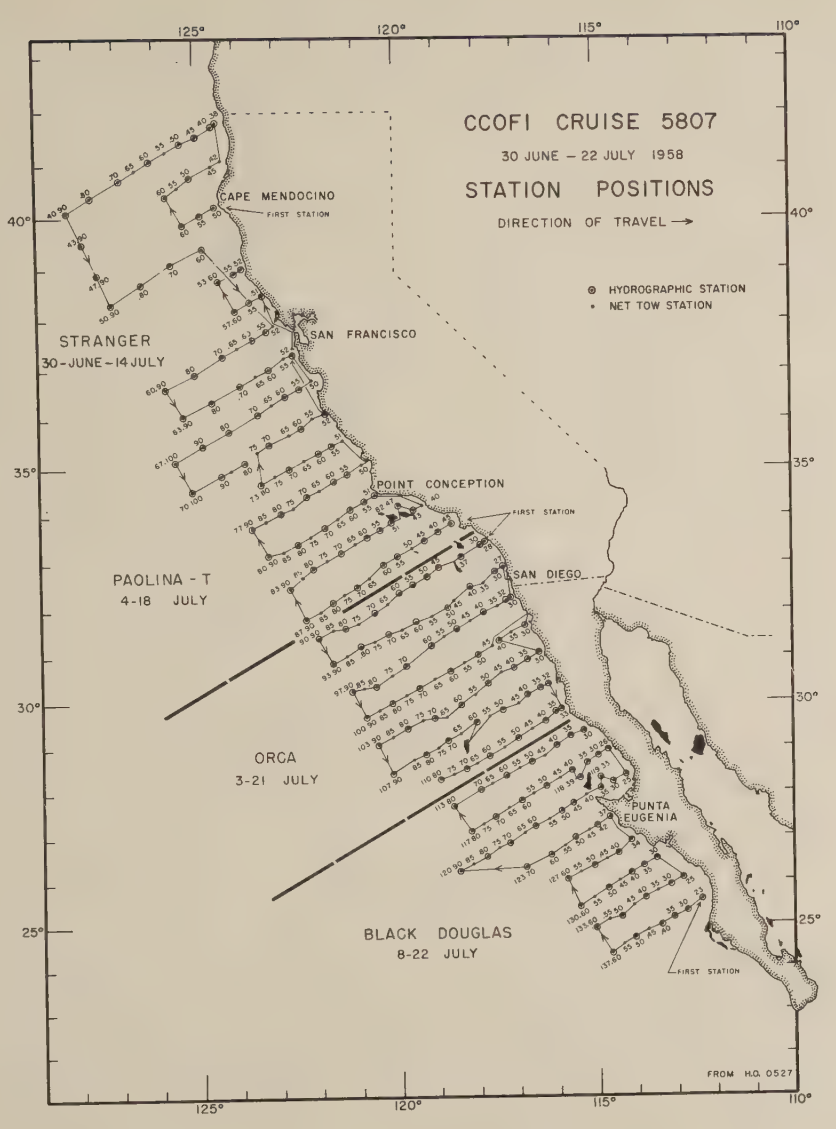


CHART 8. Station positions, CCOFI, Cruise 5807

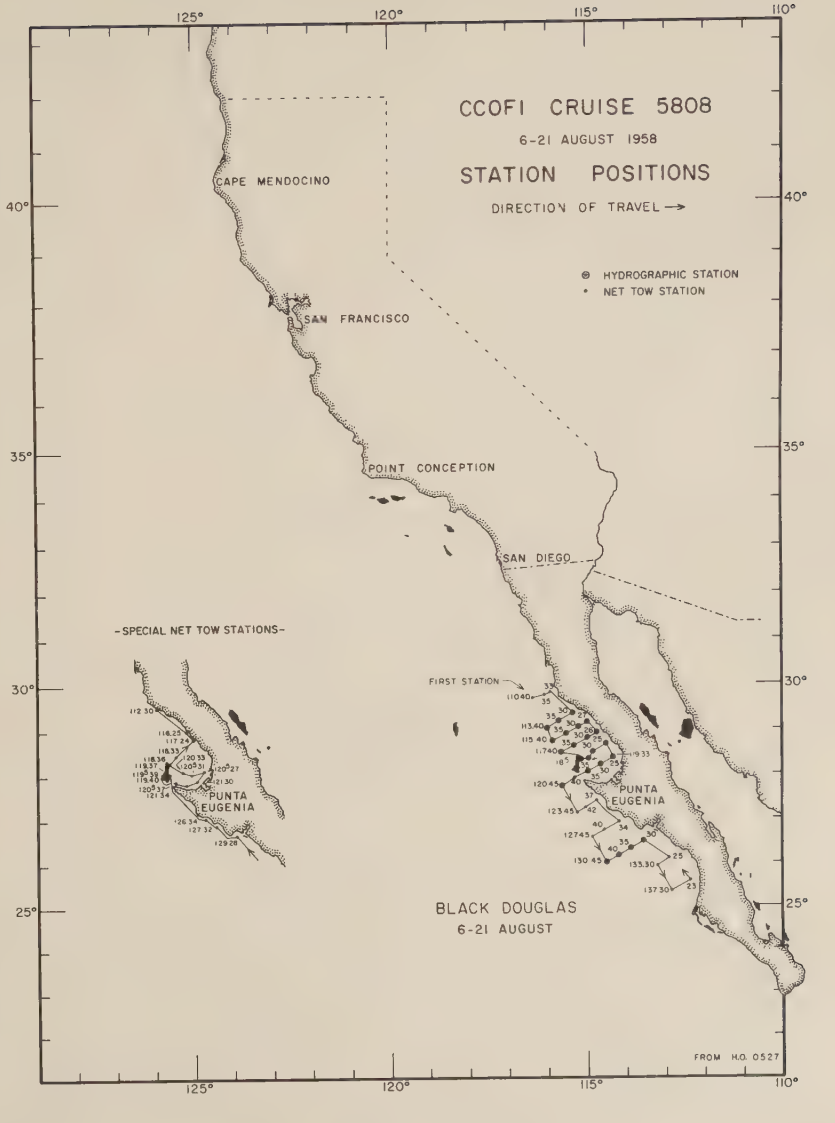
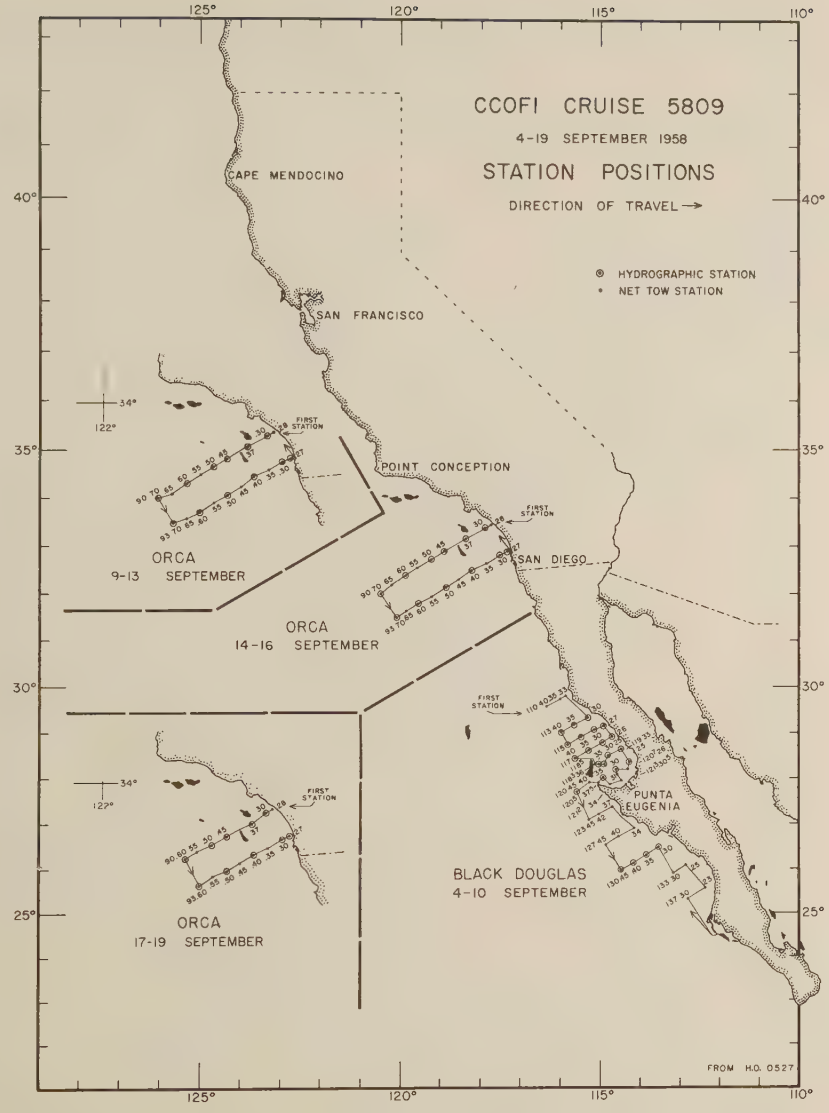


CHART 9. Station positions, CCOFI, Cruise 5808



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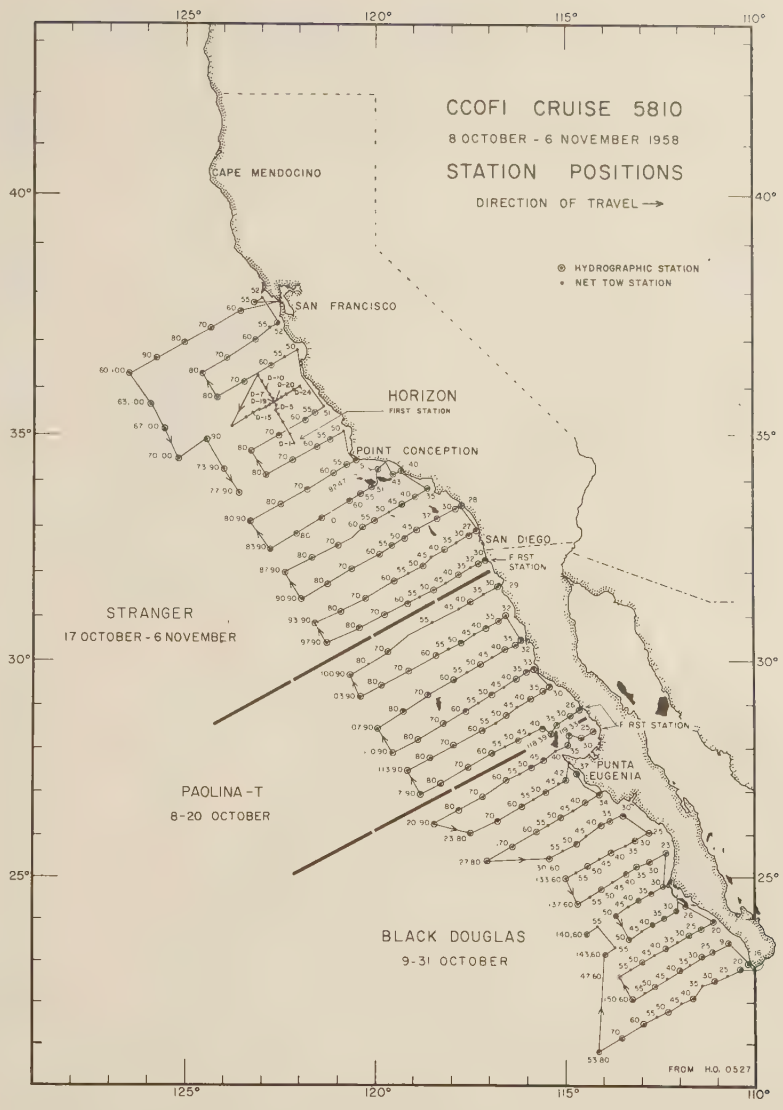

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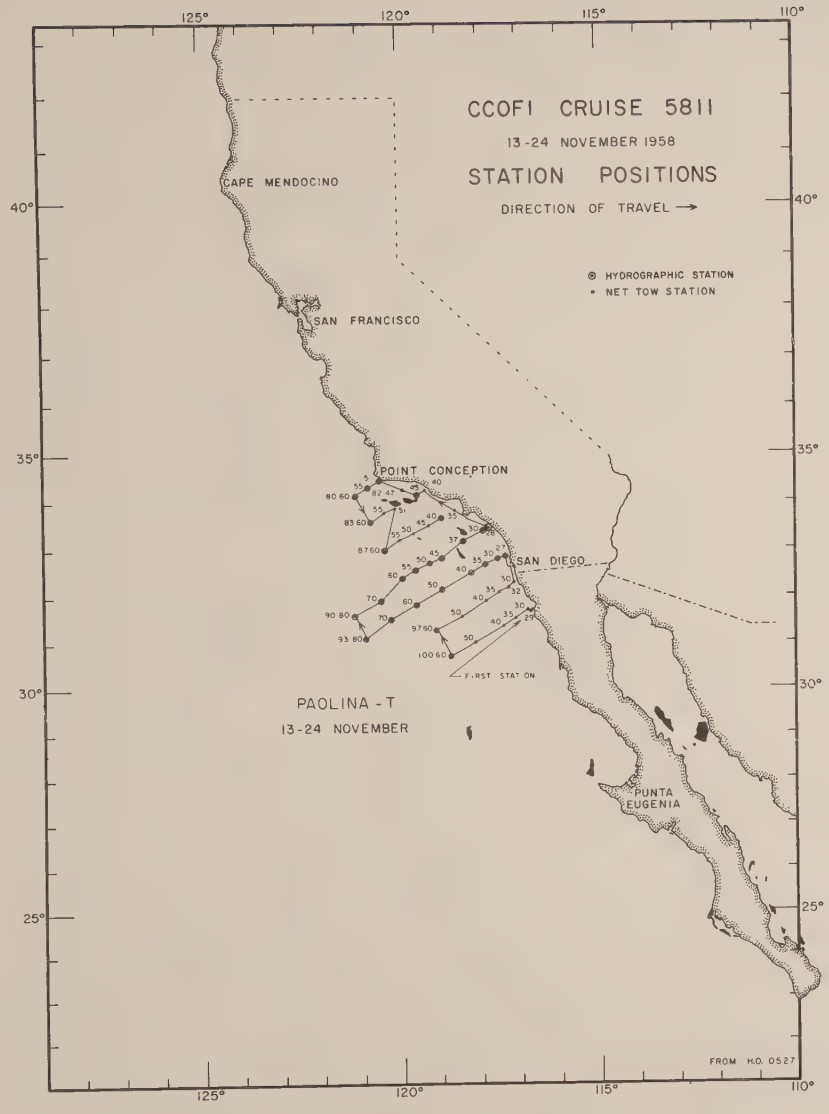

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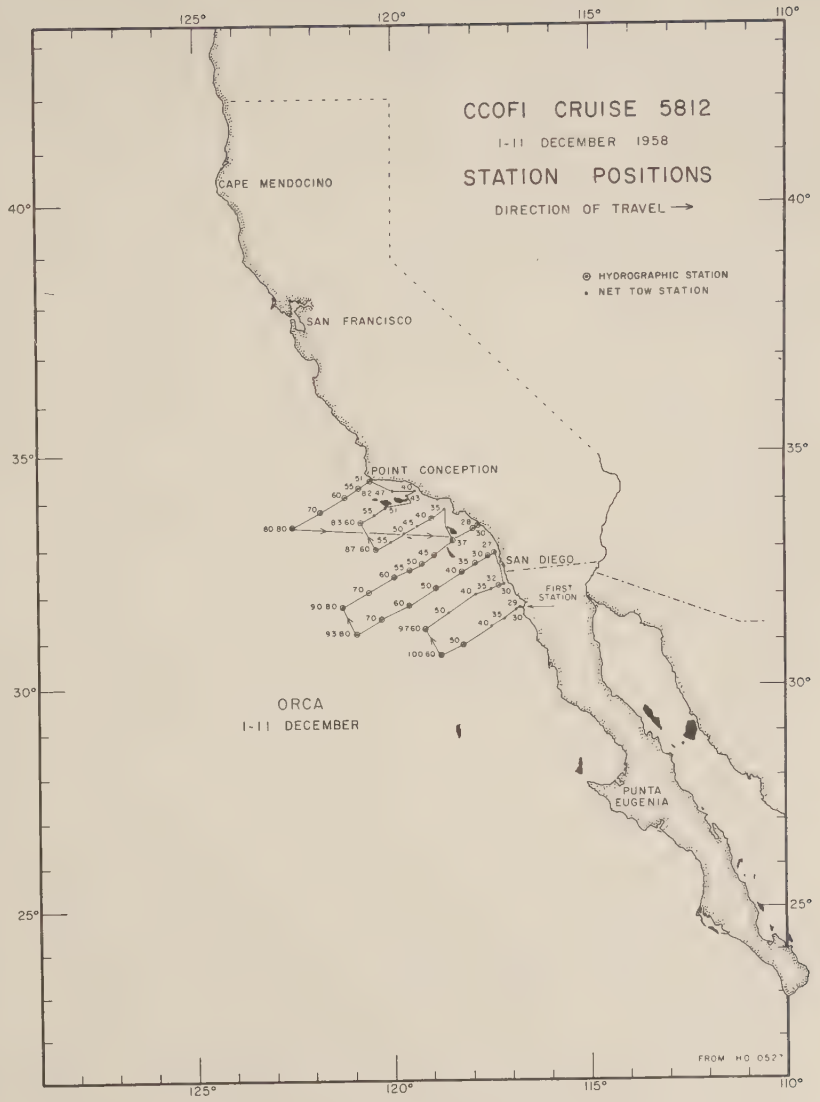

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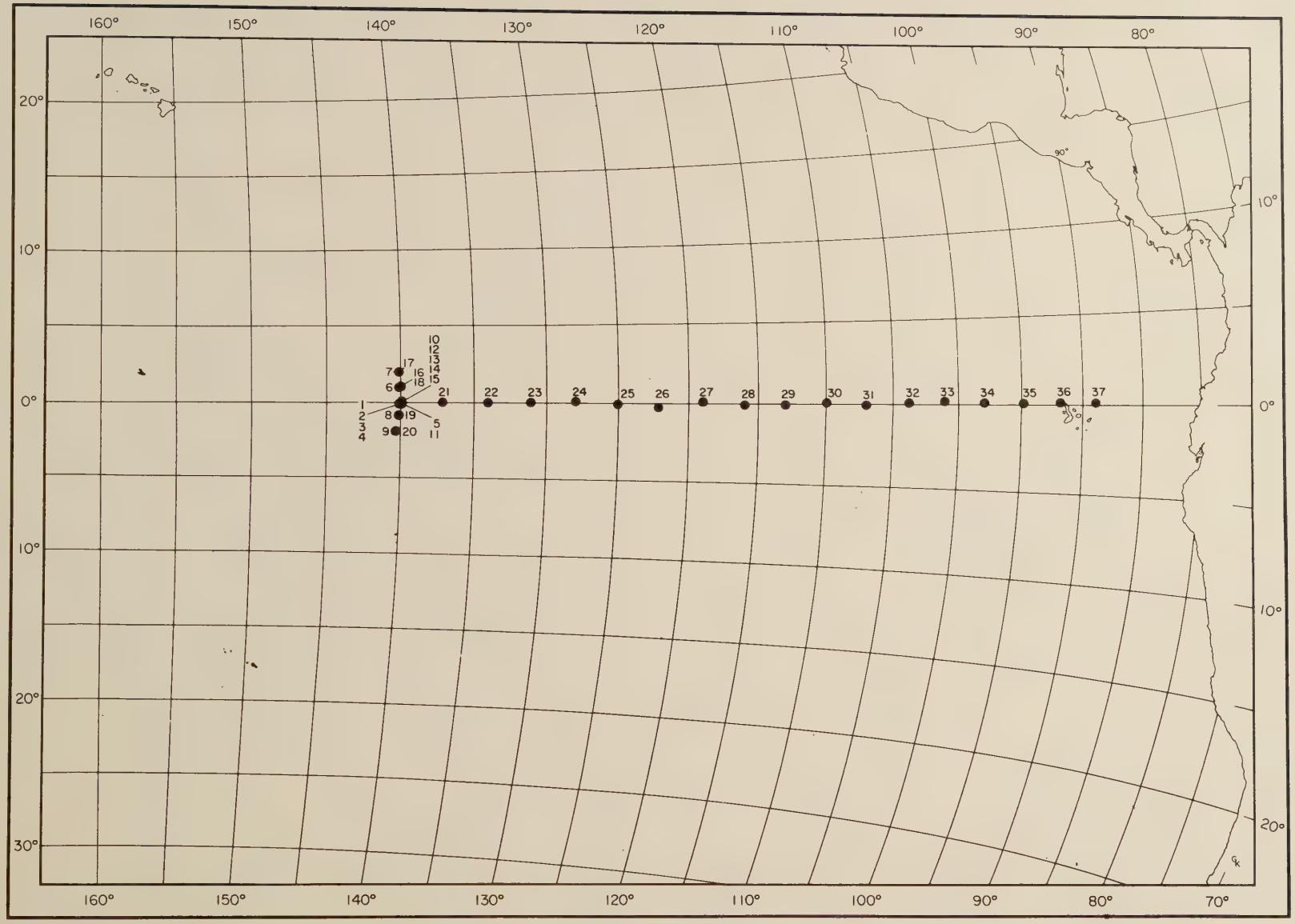

CHART 14. Station positions, Scripps Institution of Oceanography for International Geophysical Year, RV Horizon on Expedition Dolphin

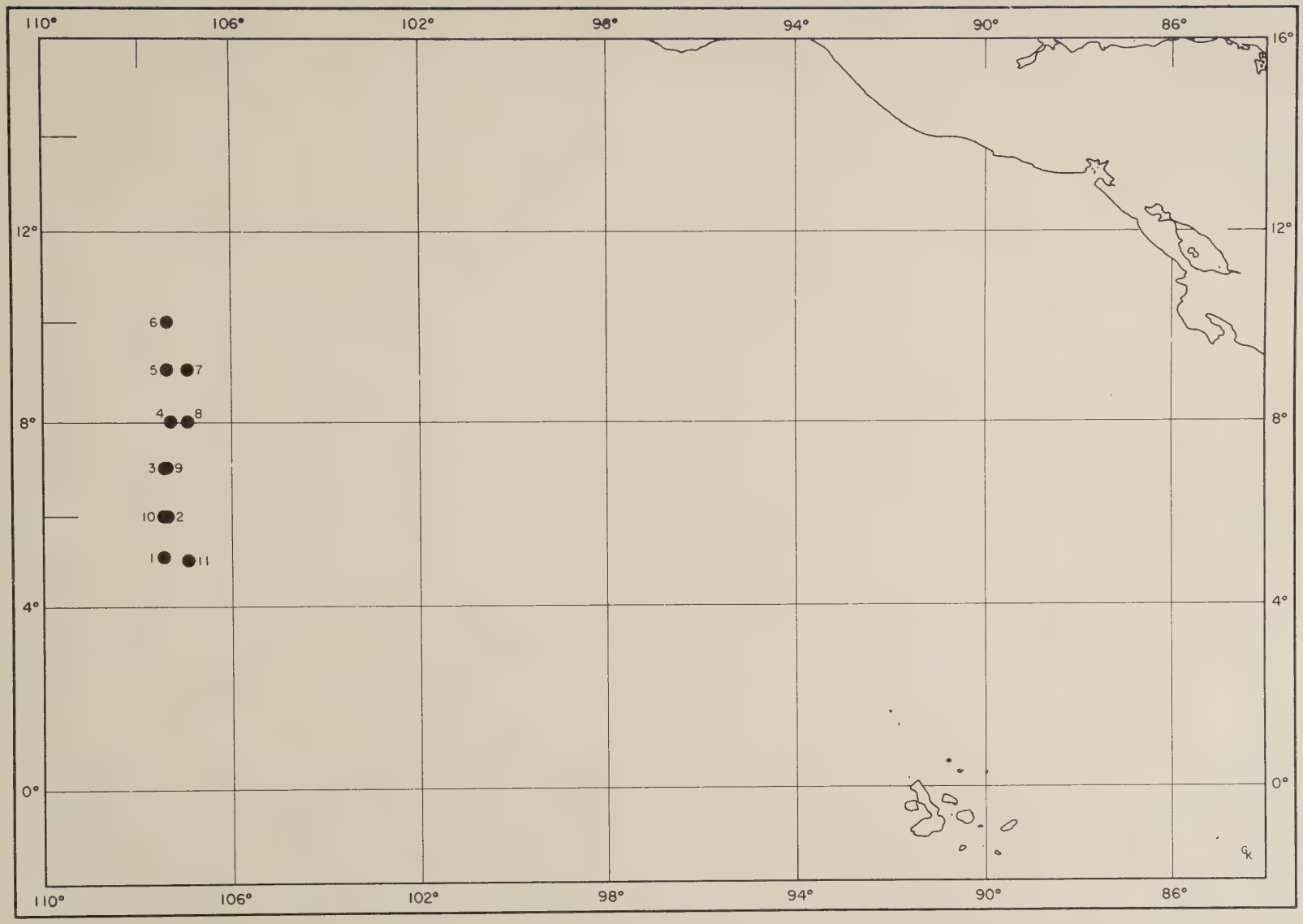

CHART 15. Station positions, Scripps Institution of Oceanography for International Geophysical Year, RV Stranger on Expedition Doldrums

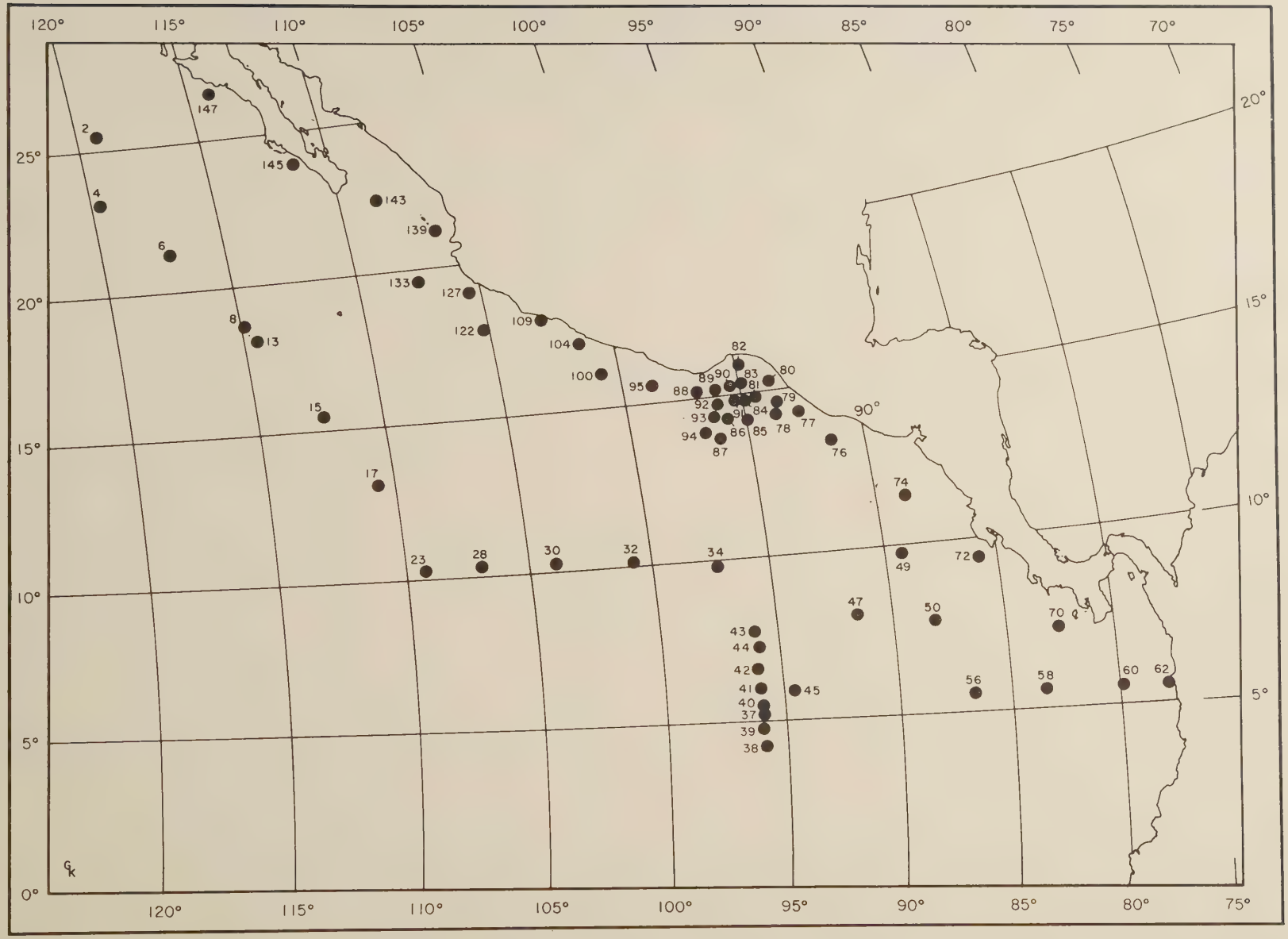

CHART 16. Station positions, Scripps Institution of Oceanography, RV Spencer F. Baird on Expedition SCOT (TO-58-1)

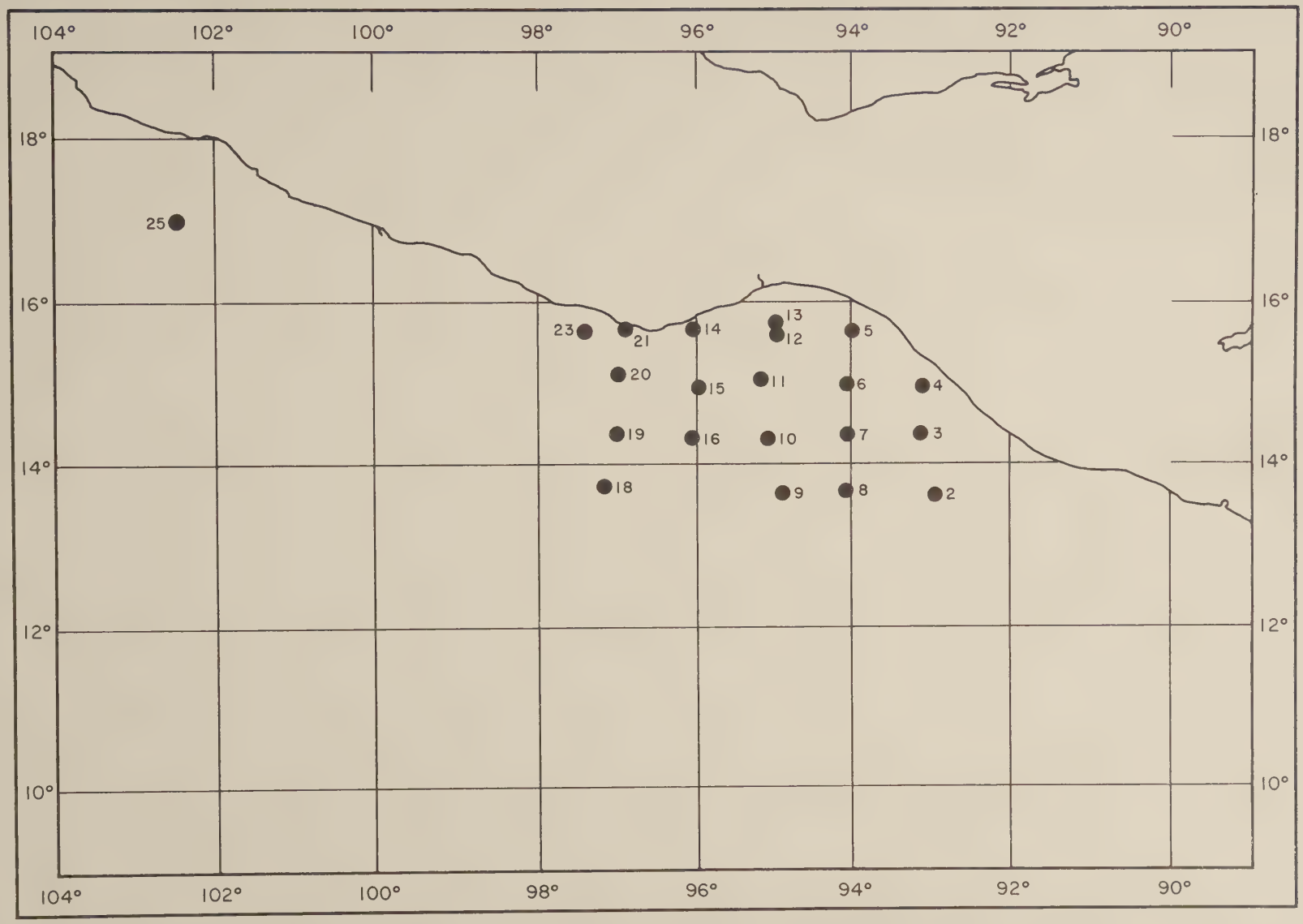

CHART 17. Station positions, Scripps Institution of Oceanography, RV Spencer F. Baird on Cruise TO-58-2

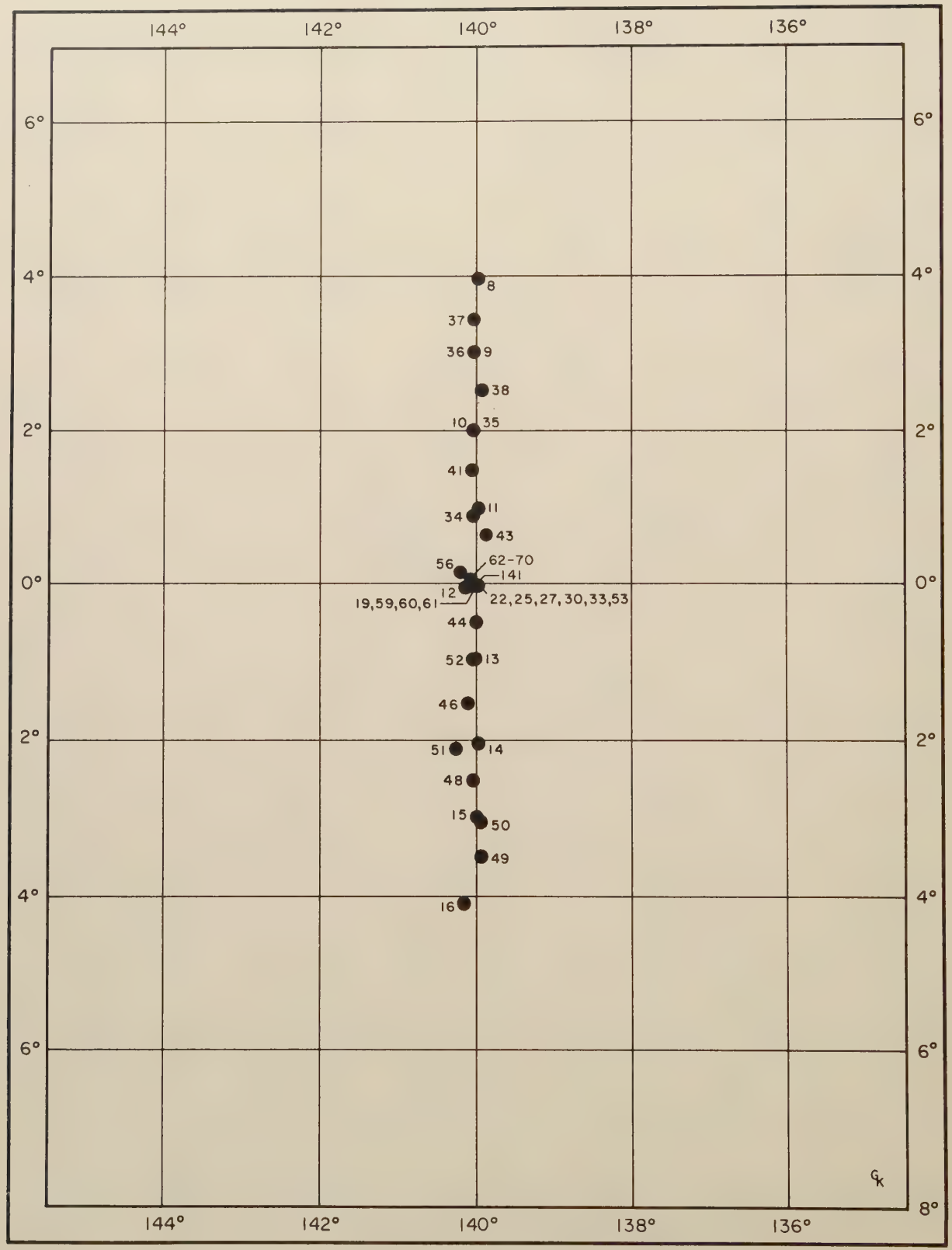

CHART 18. Station positions, Bureau of Commercial Fisheries, Honolulu, Cruise 45 of RV Hugh M. Smith

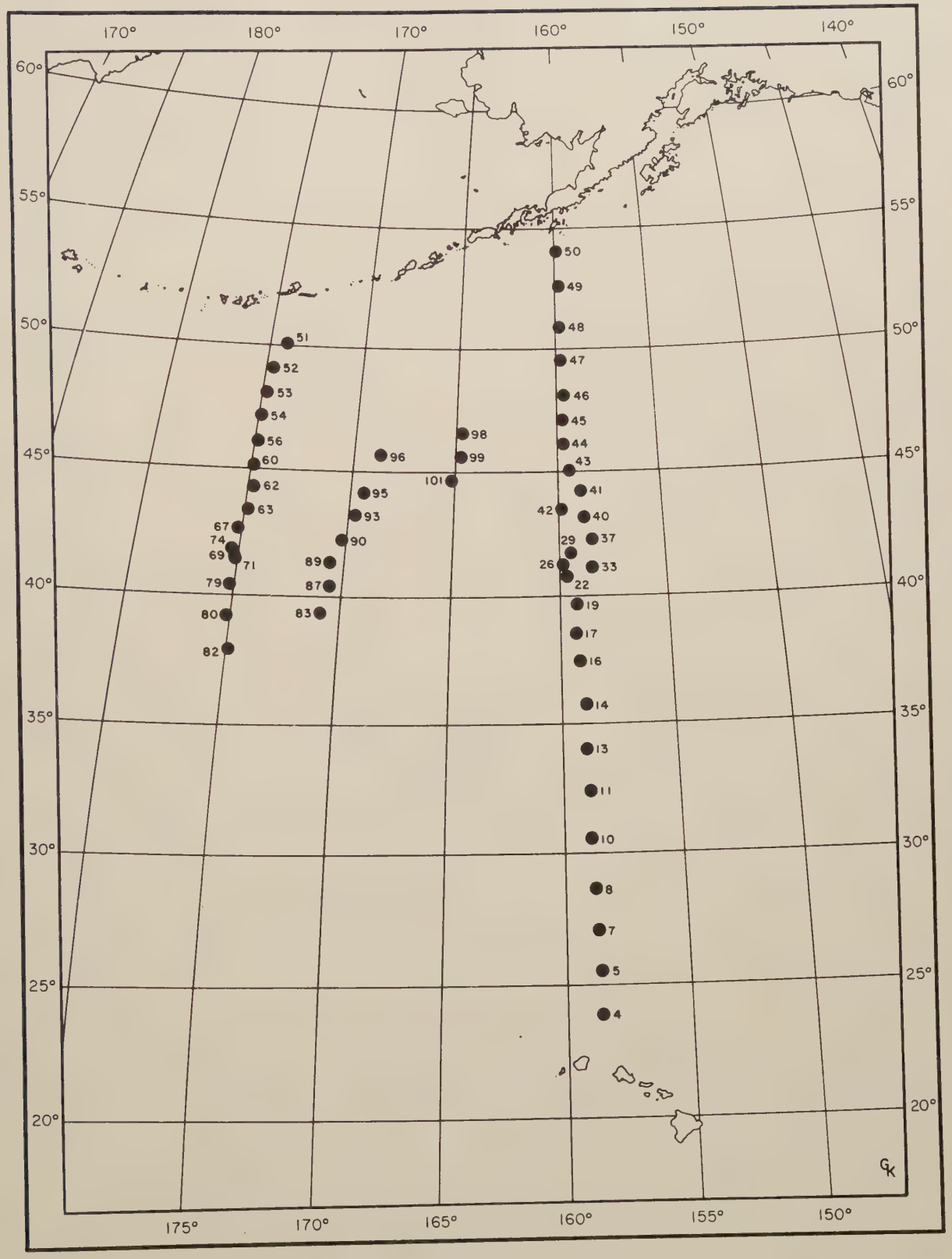

CHART 19. Station positions, Bureau of Commercial Fisheries, Honolulu, Cruise 46 of RV Hugh M. Smith

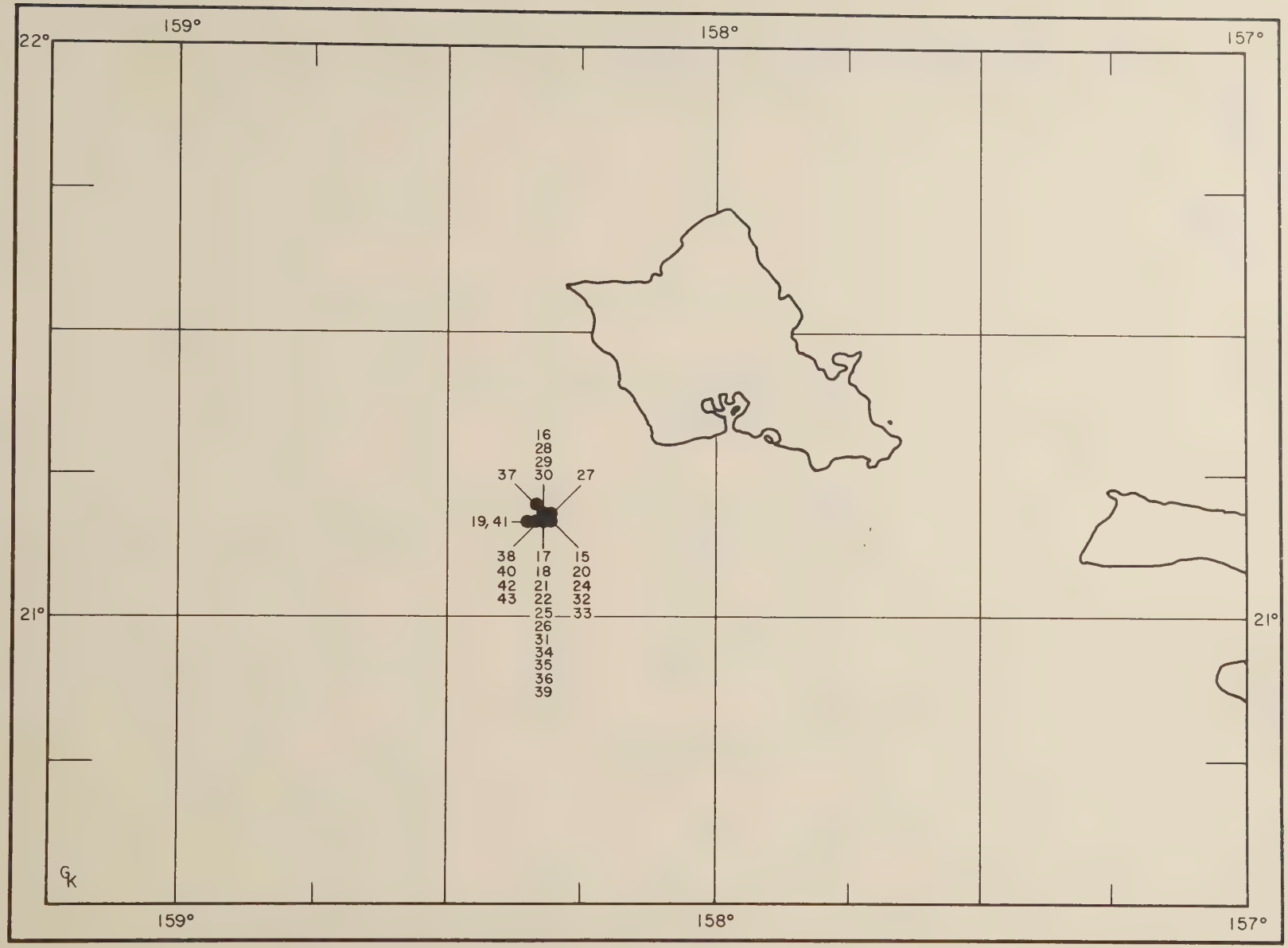

CHART 20. Station positions, Bureau of Commercial Fisheries, Honolulu, International Geophysical Year cruises, RV Charles H. Gilbert, RV Hugh M. Smith and RV Makua

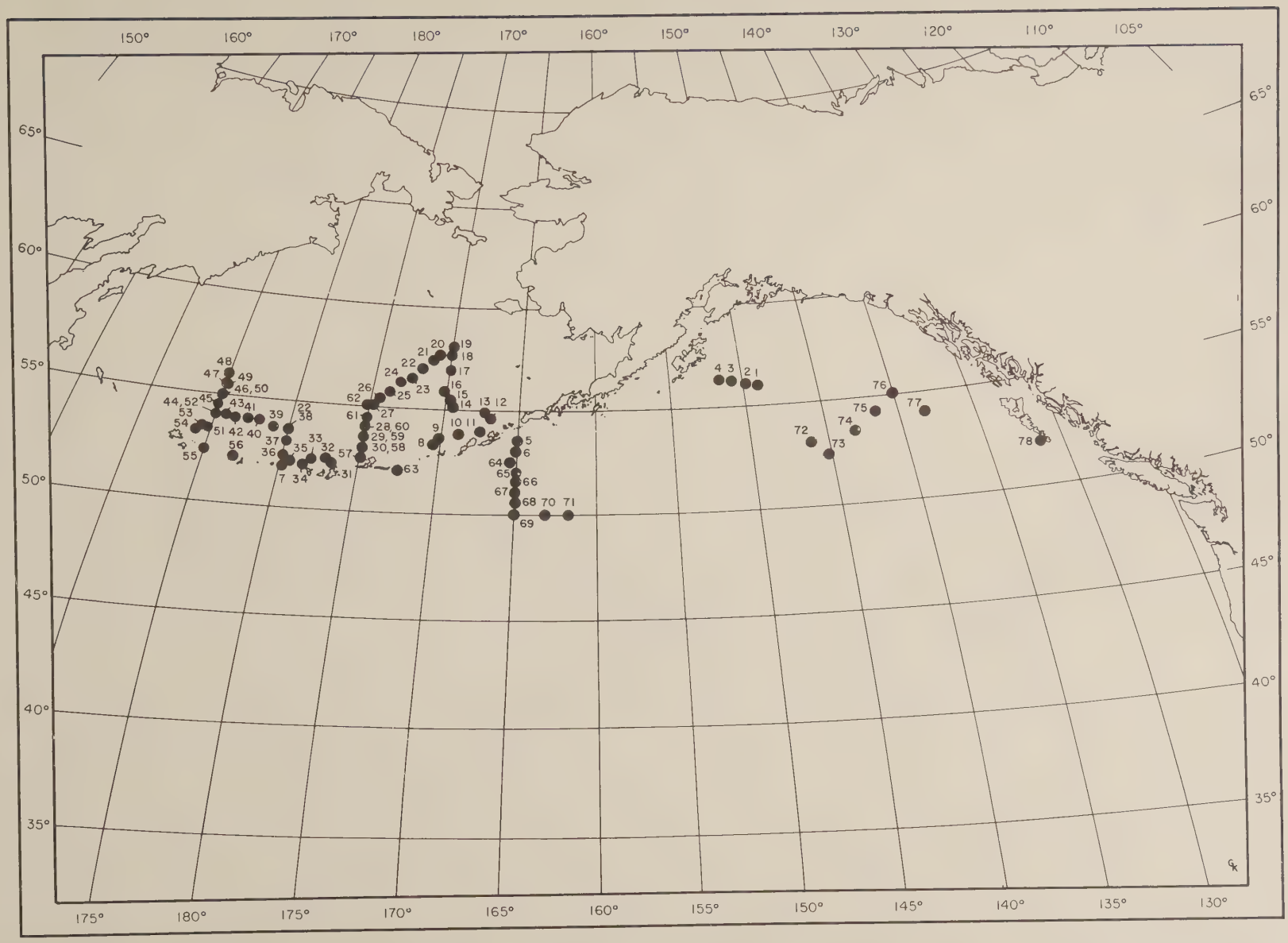

CHART 21. Station positions, Bureau of Commercial Fisheries, Seattle, MV Attu

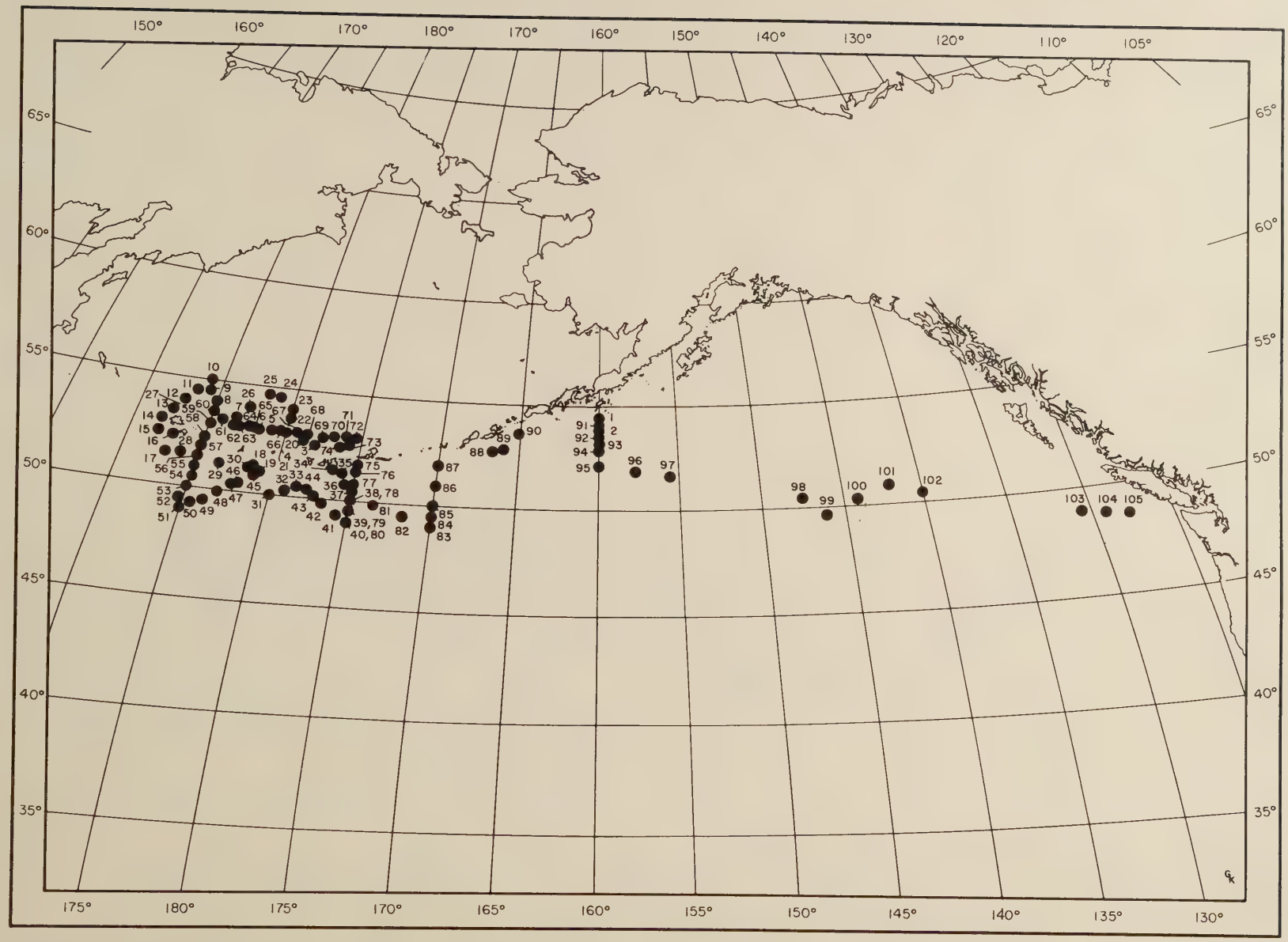

CHART 22. Station positions, Bureau of Commercial Fisheries, Seattle, MV Pioneer

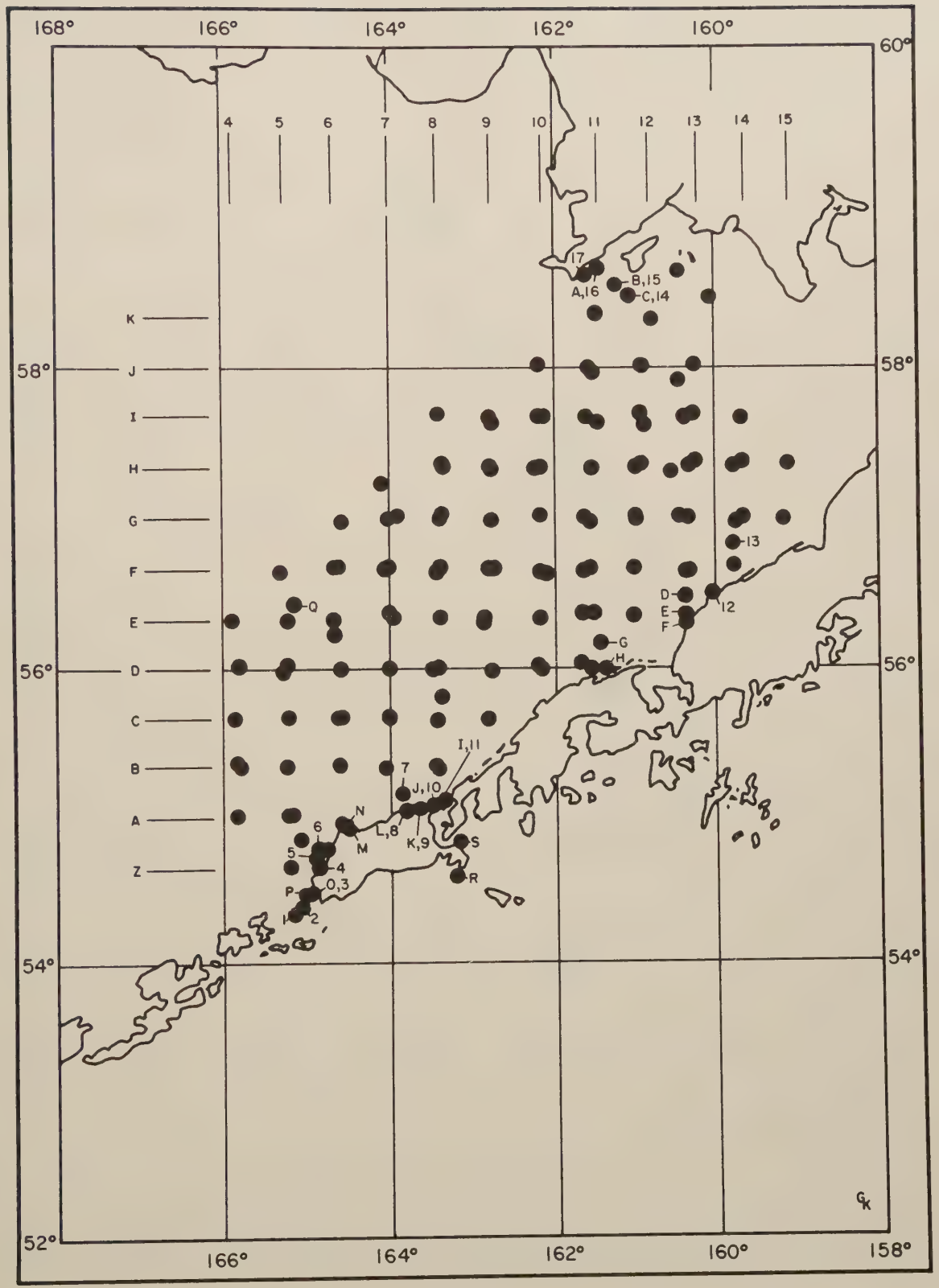

CHART 23. Station positions, Bureau of Commercial Fisheries, Seattle, King Crab Investigations, MV Tordenskjold

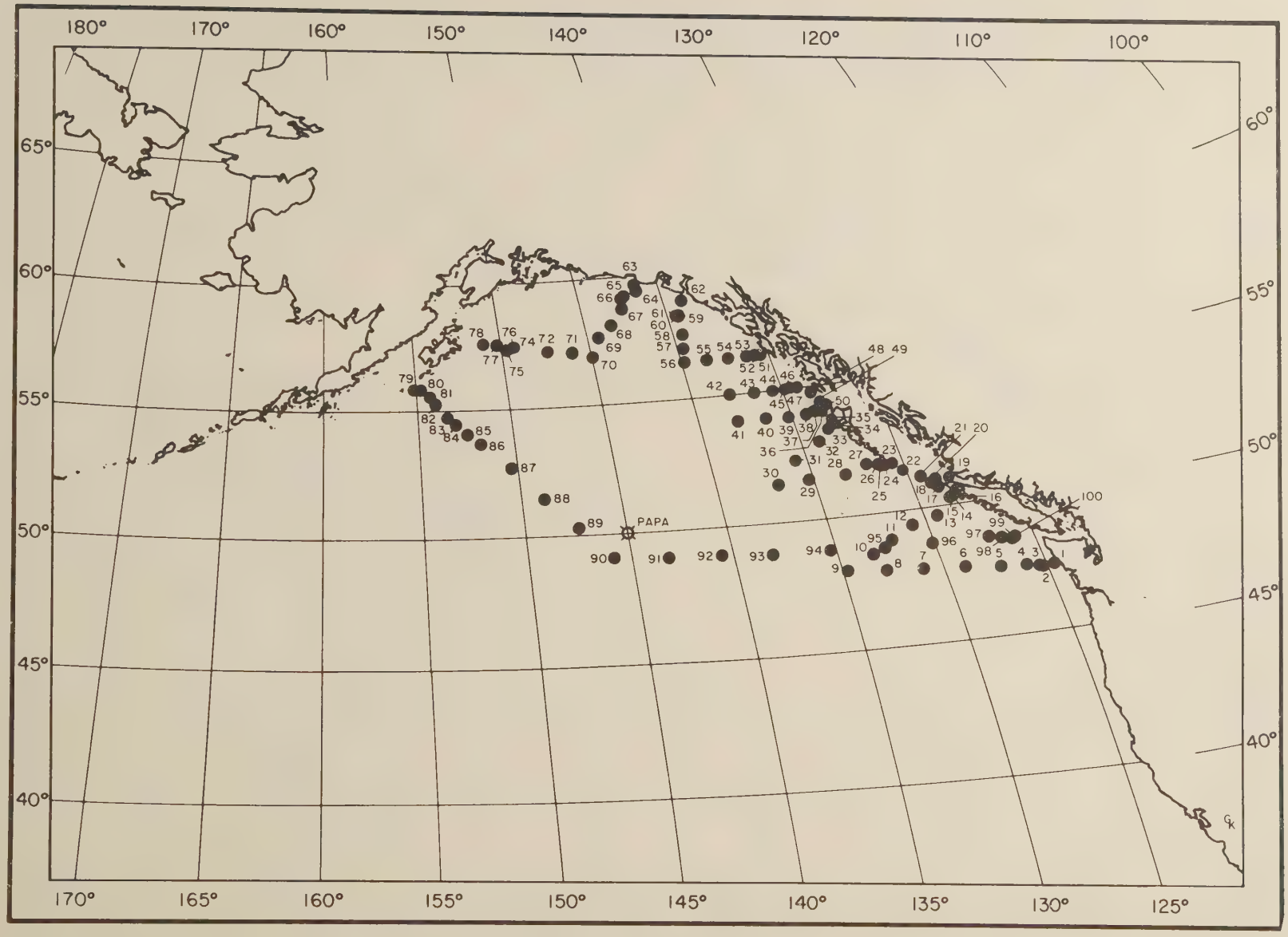

CHART 24. Station positions, Pacific Oceanographic Group, CGS St. Catharines on Cruises P-58-1 through P-58-4 (Ocean Weather Station PAPA) and HMCS Oshawa on Cruise NP-58-1

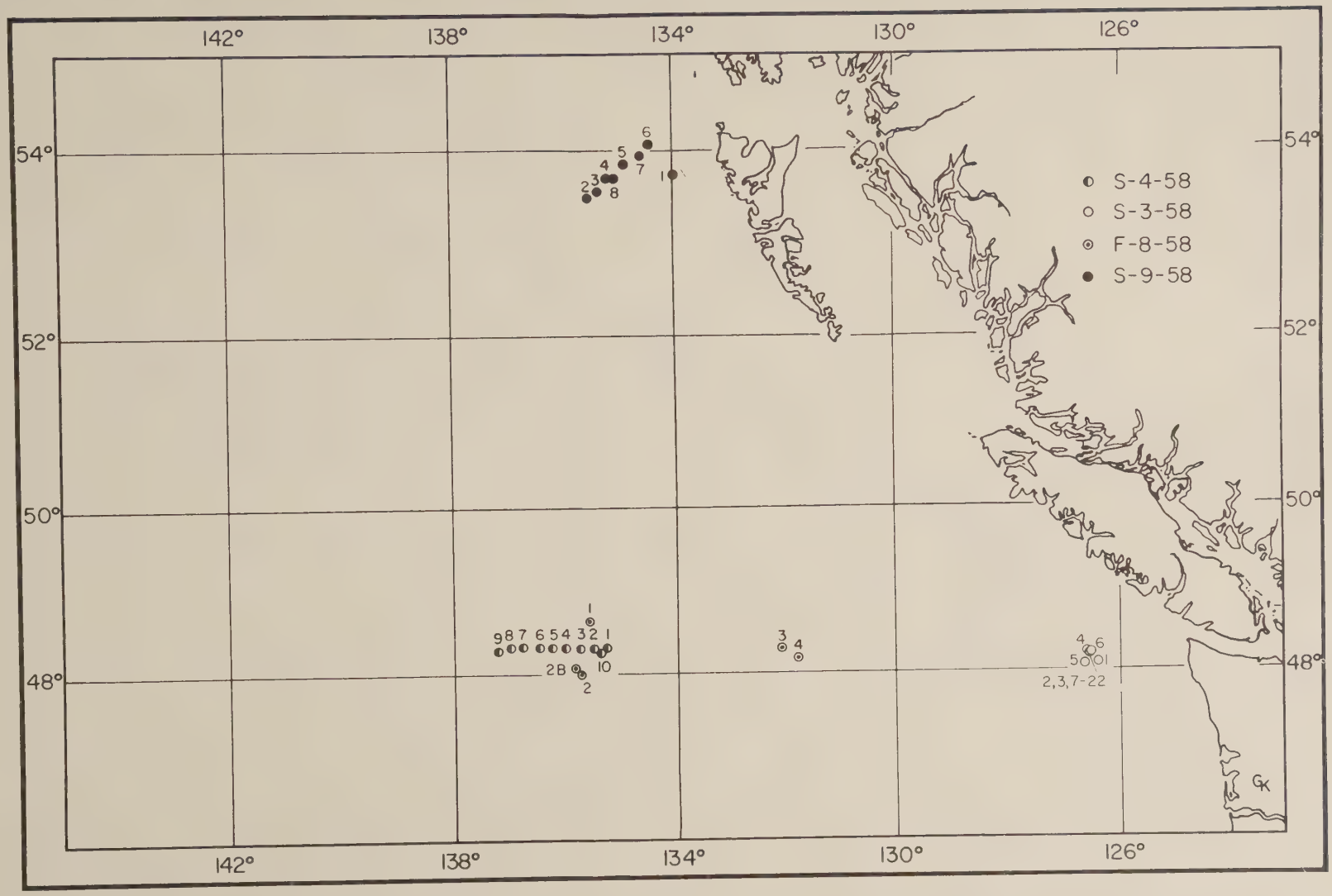

CHART 25. Station positions, Pacific Oceanographic Group, HMCS Oshawa on Cruises S-4-58, S-3-58, F-8-58 and S-9-58

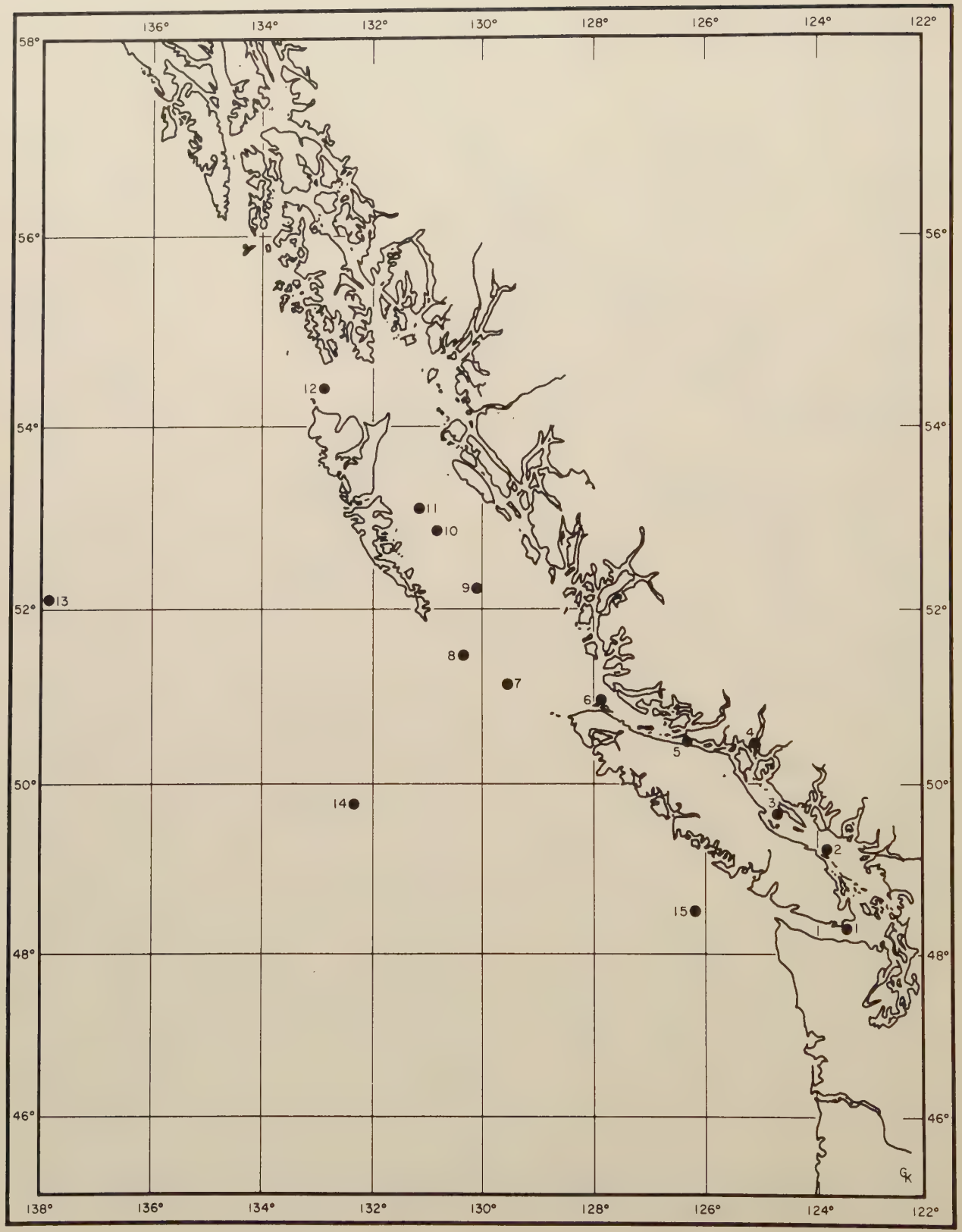

CHART 26. Station positions, Pacific Oceanographic Group, HMCS Oshawa on Cruise CC-58-1

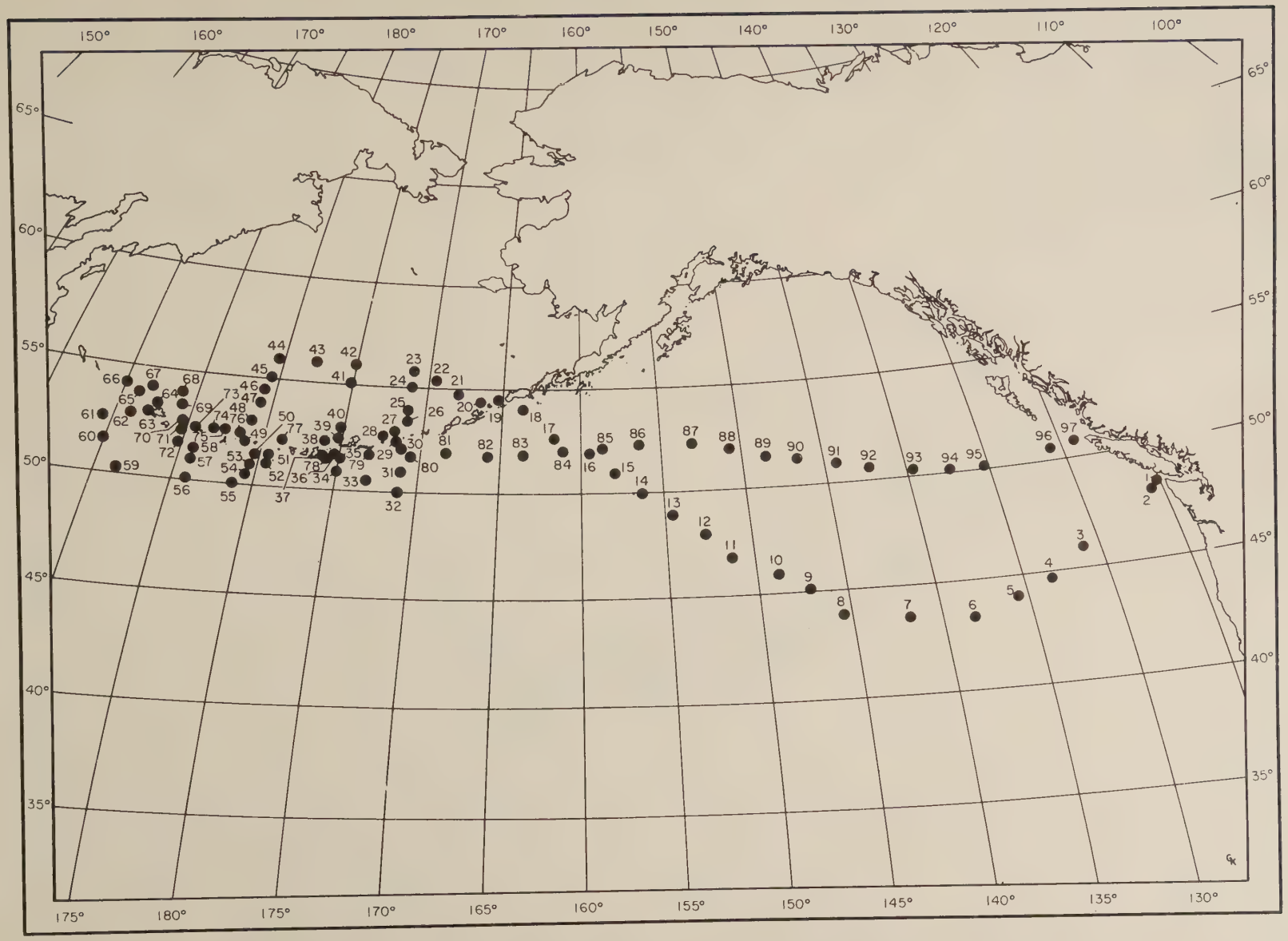

CHART 27. Station positions, Pacific Oceanographic Group, CNAV Whitethroat on Cruise NP-58-2

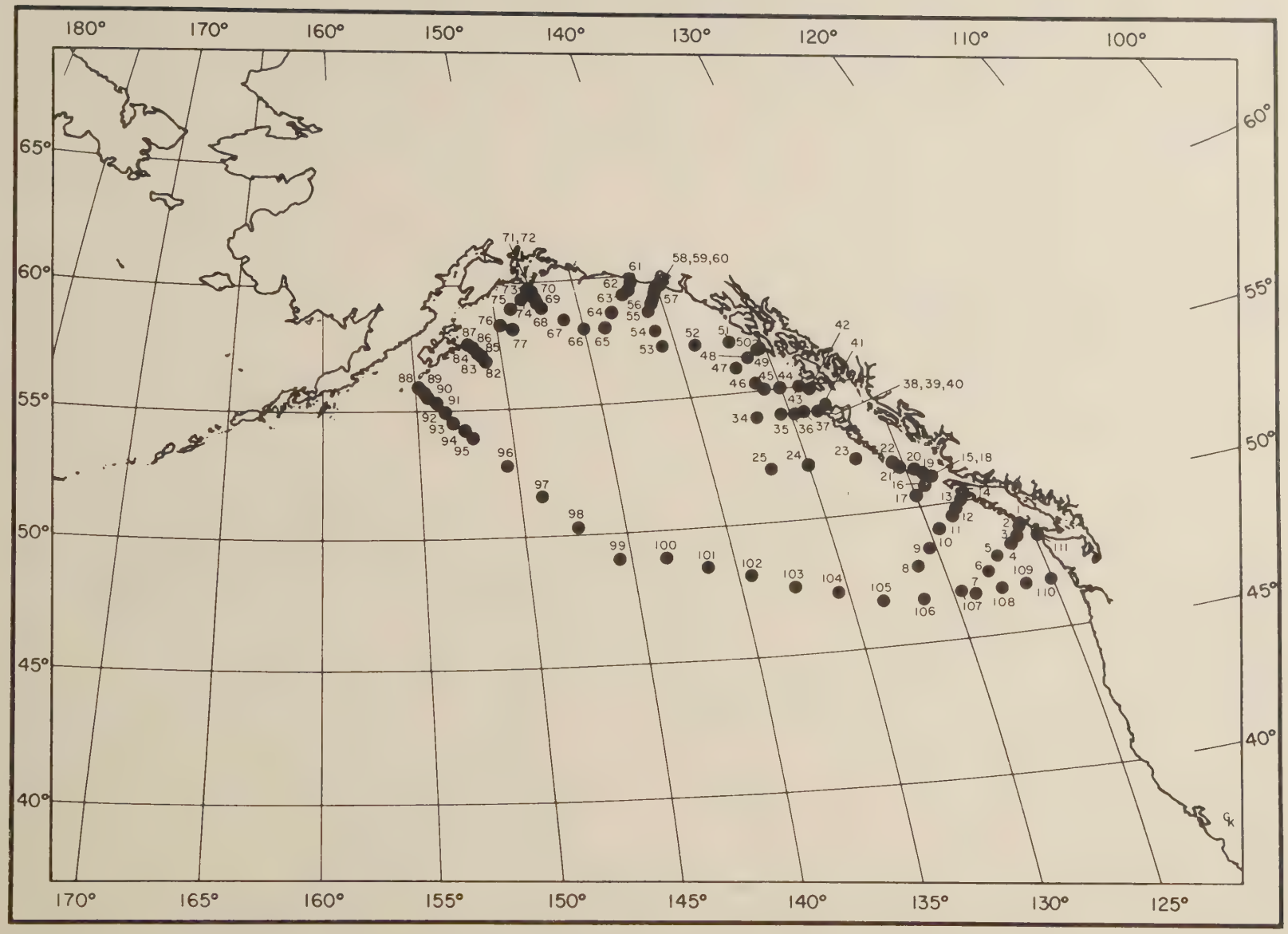

CHART 28. Station positions, Pacific Oceanographic Group, HMCS Oshawa on Cruise NP-58-3

CHART 29. Station positions, Pacific Oceanographic Group, CNAV Whitethroat on Cruise CS-58-1

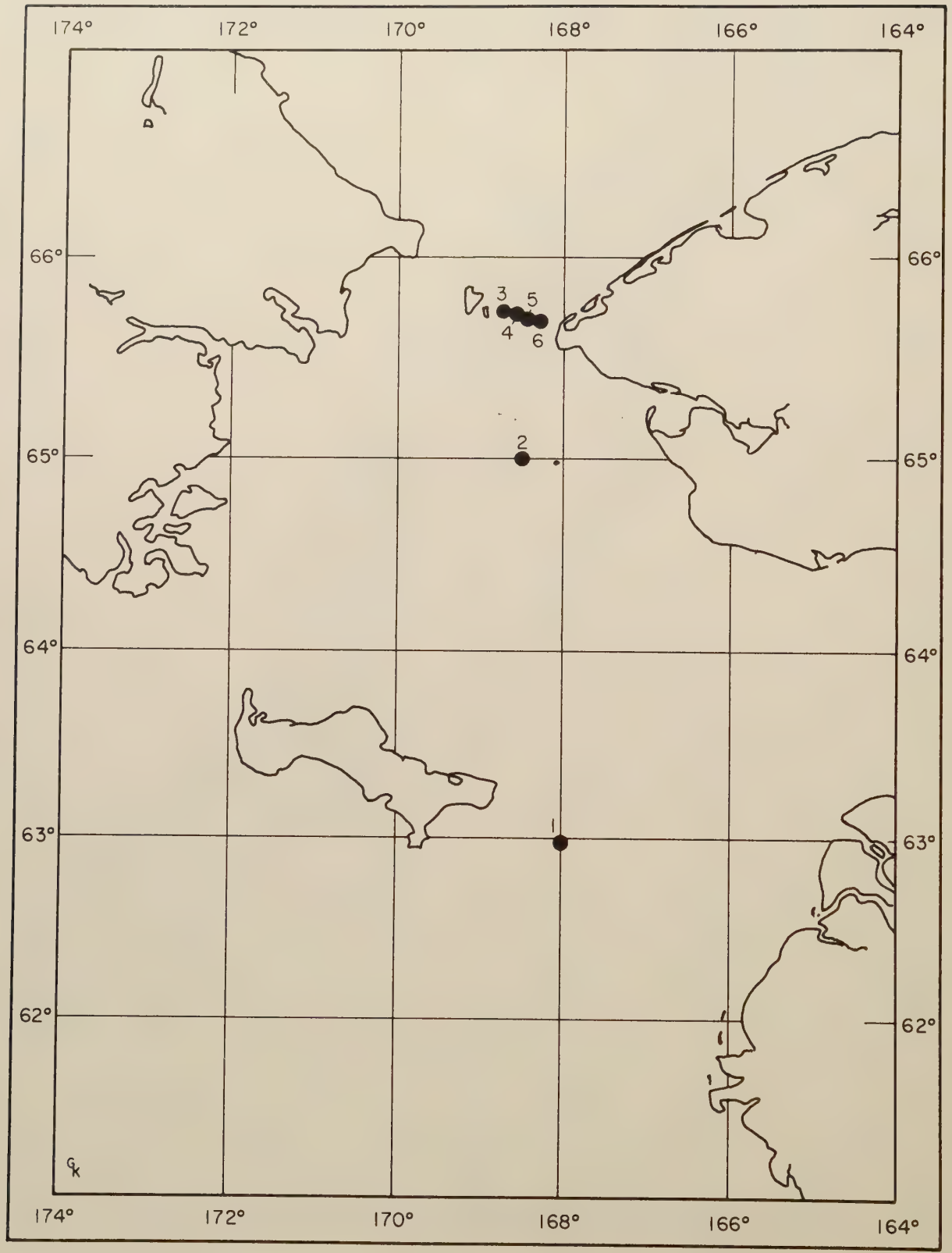

CHART 30. Station positions, U. S. Naval Oceanographic Office, USS Burton Island

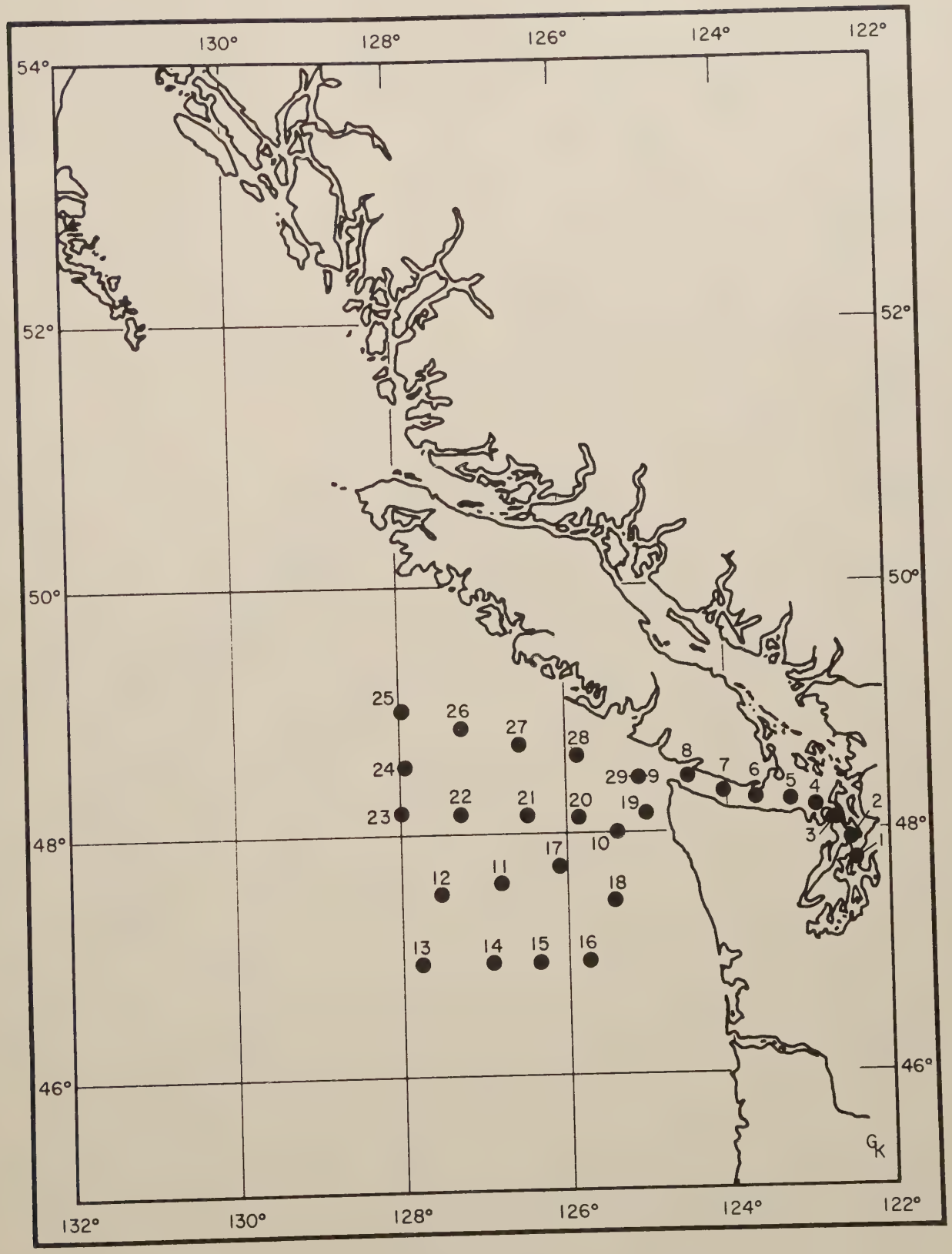

CHART 31. Station positions, University of Washington, Cruise 188 of RV Brown Bear

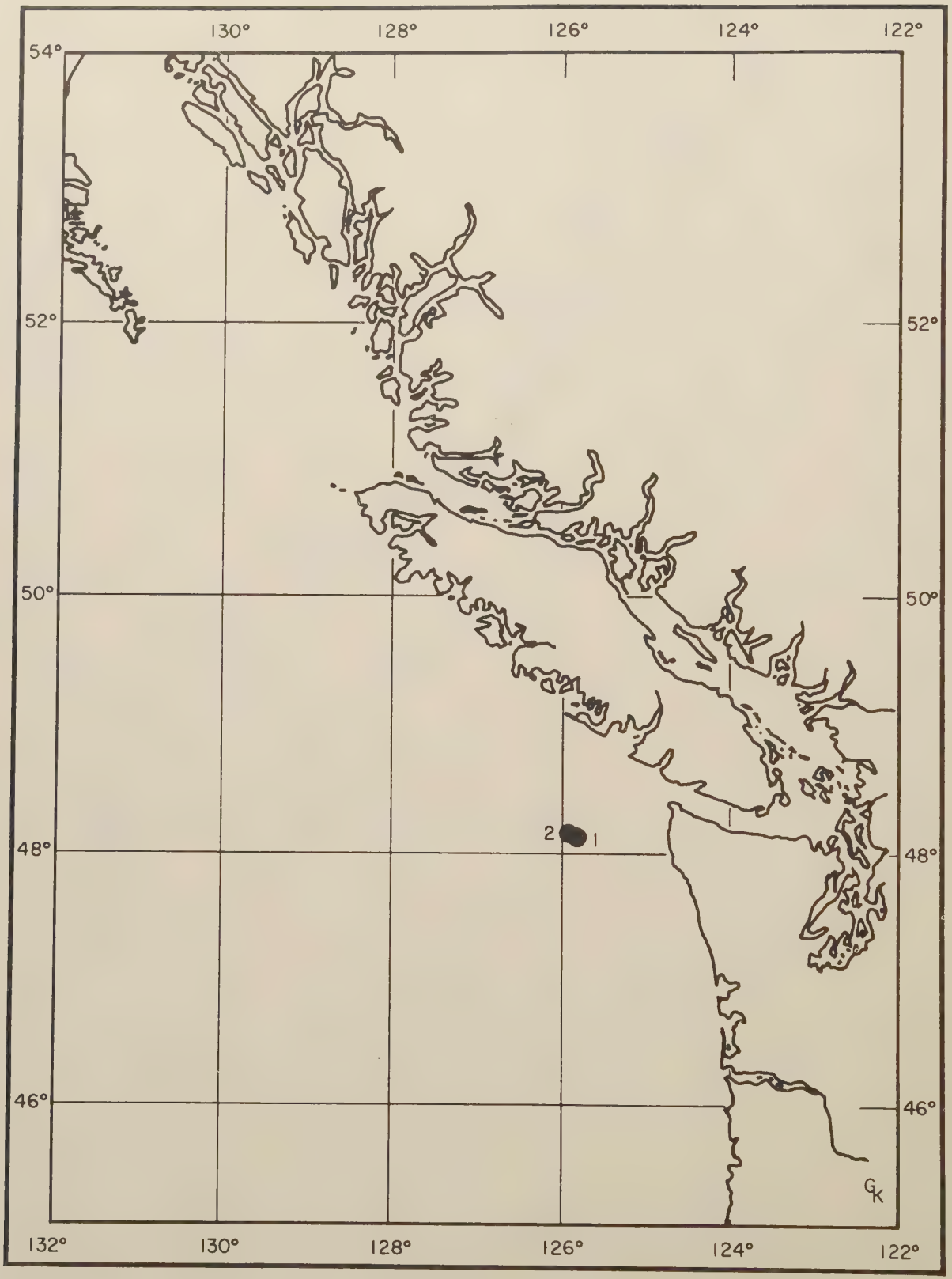

CHART 32. Station positions, University of Washington, Cruise 193 of RV Brown Bear

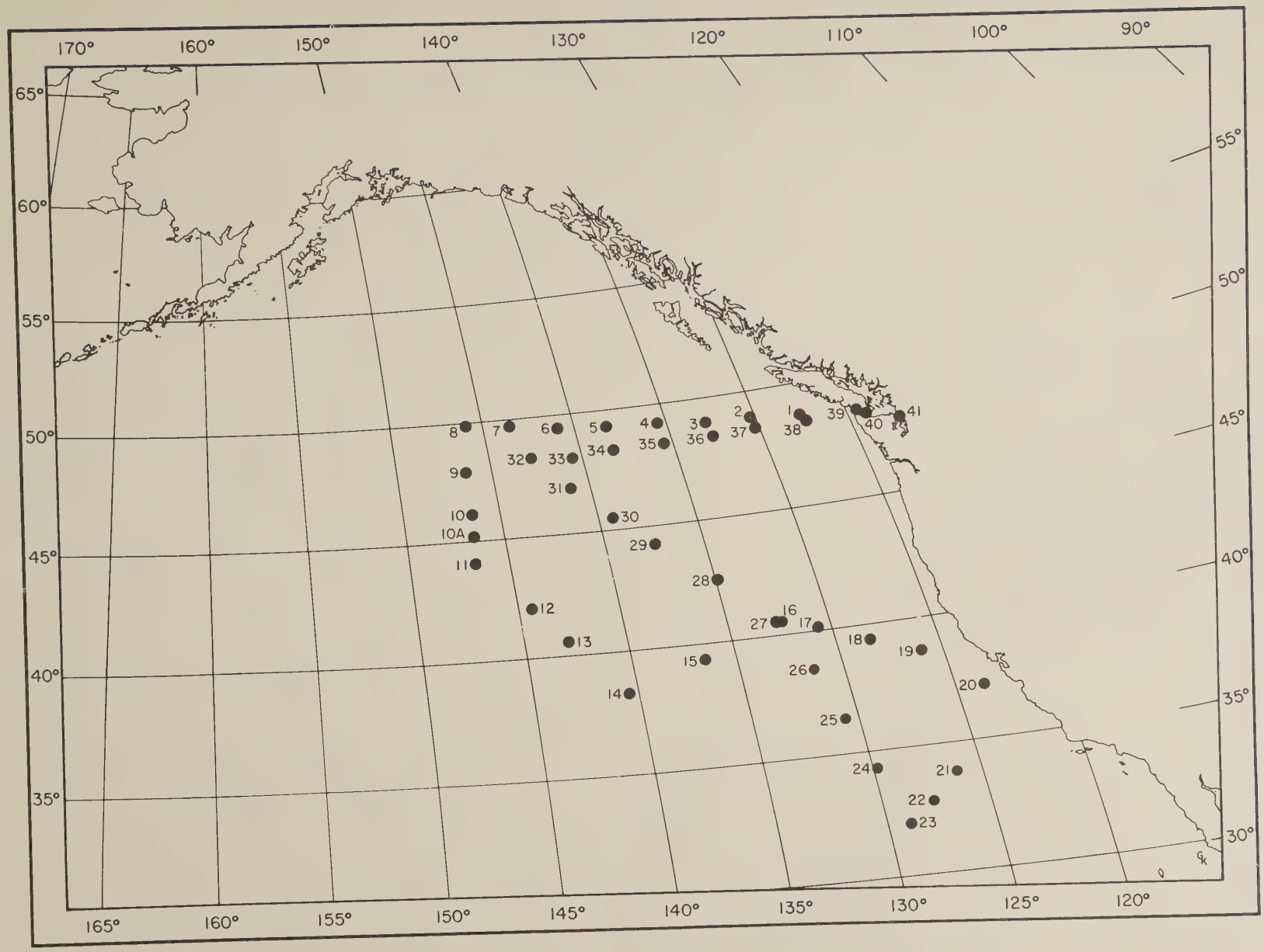

CHART 33. Station positions, University of Washington, Cruise 199 of RV Brown Bear

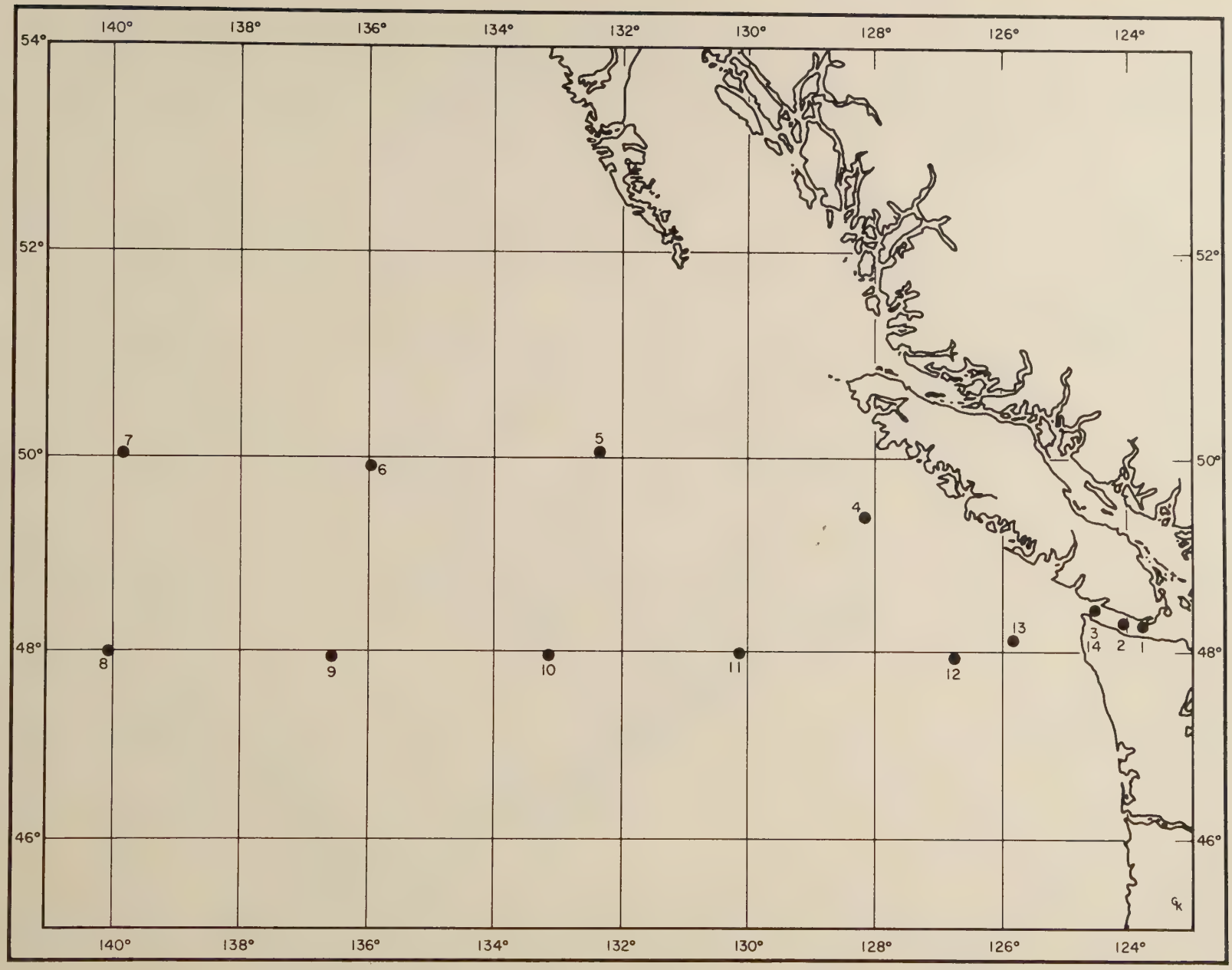

CHART 34. Station positions, University of Washington, Cruise 202 of RV Brown Bear

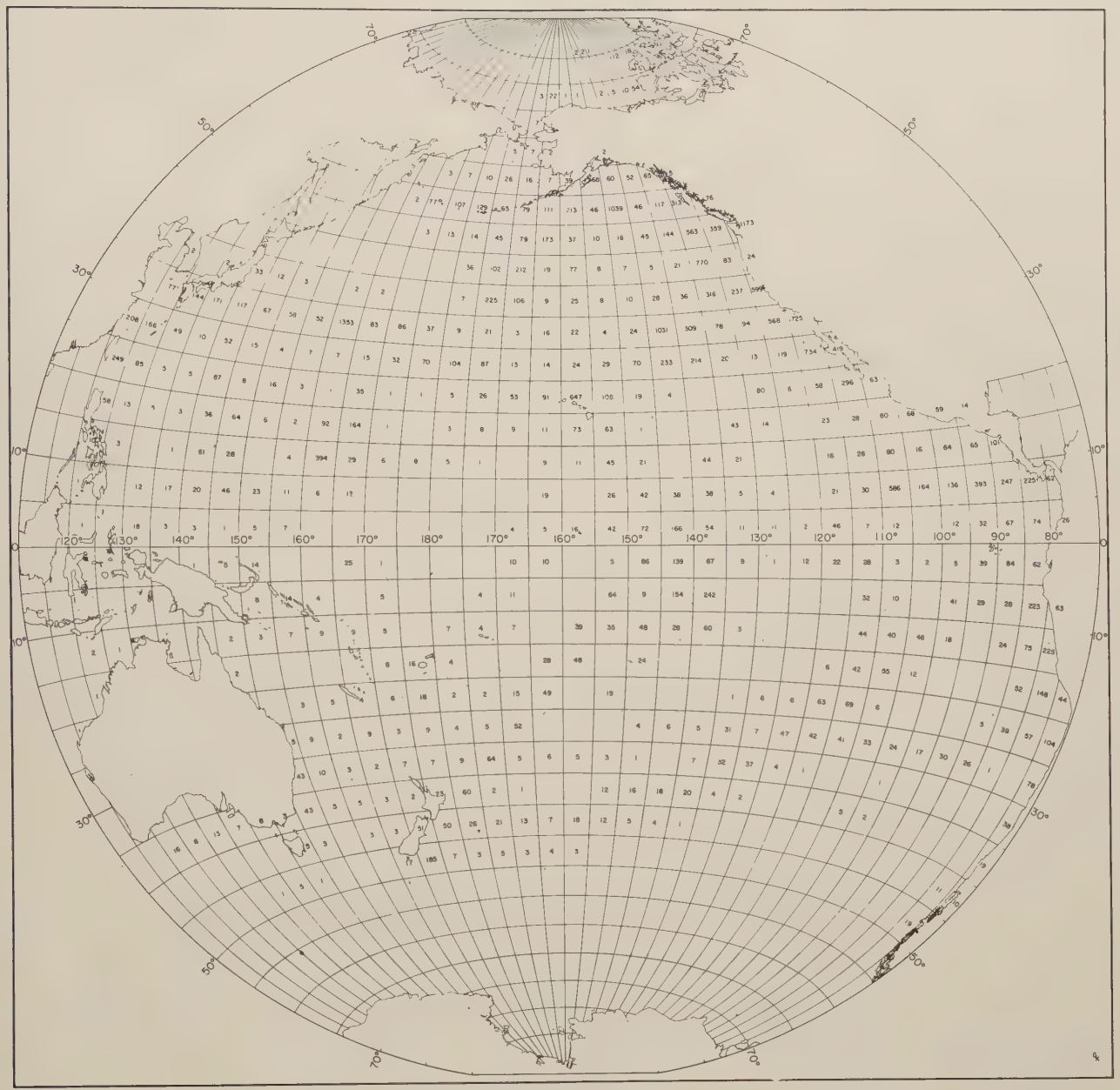

CHART 35. Bathythermograph observations, North and South Pacific, 1958; total, 29,208

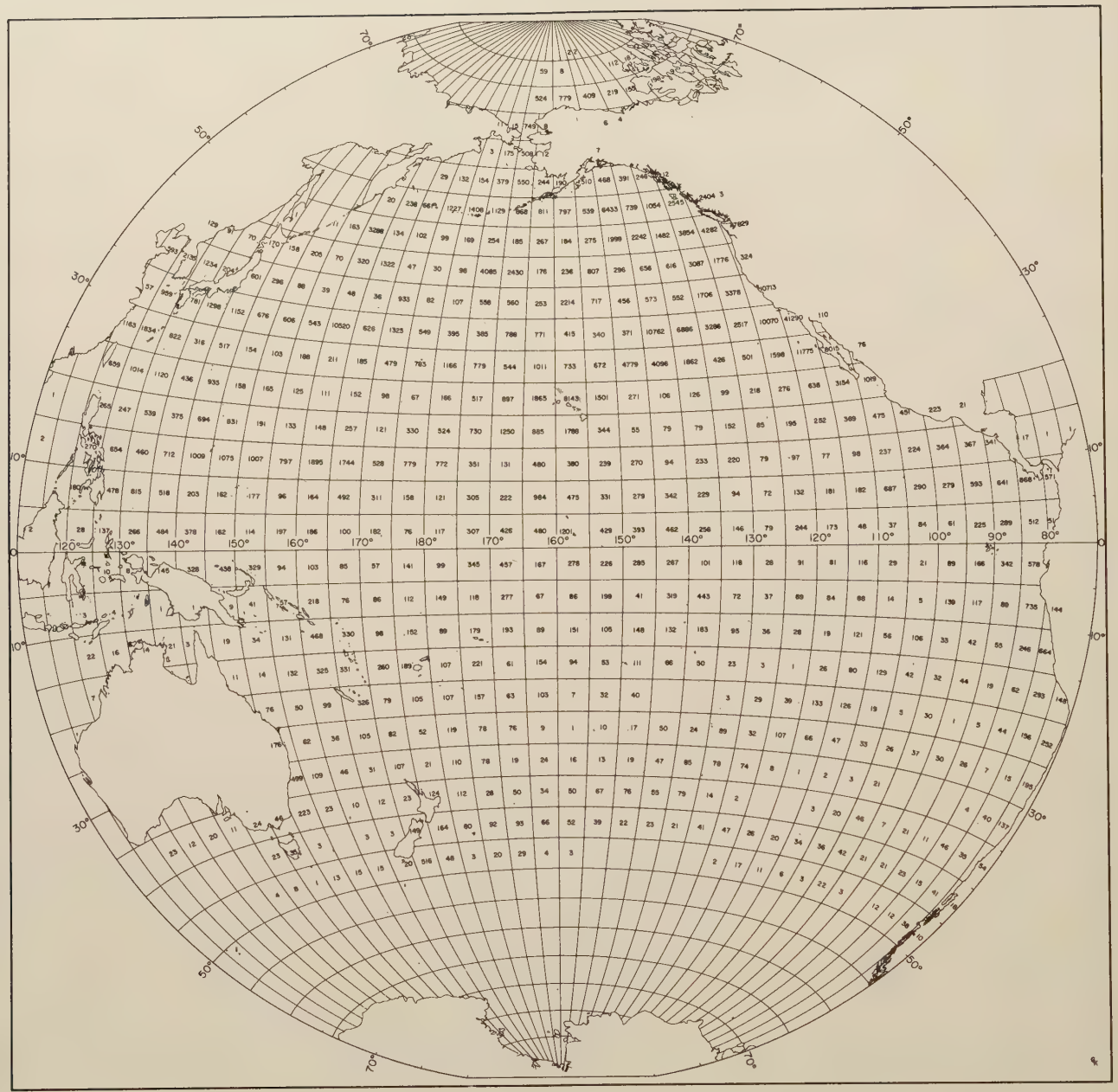

CHART 36. Bathythermograph observations, North and South Pacific, 1941–1958; total, 340,226

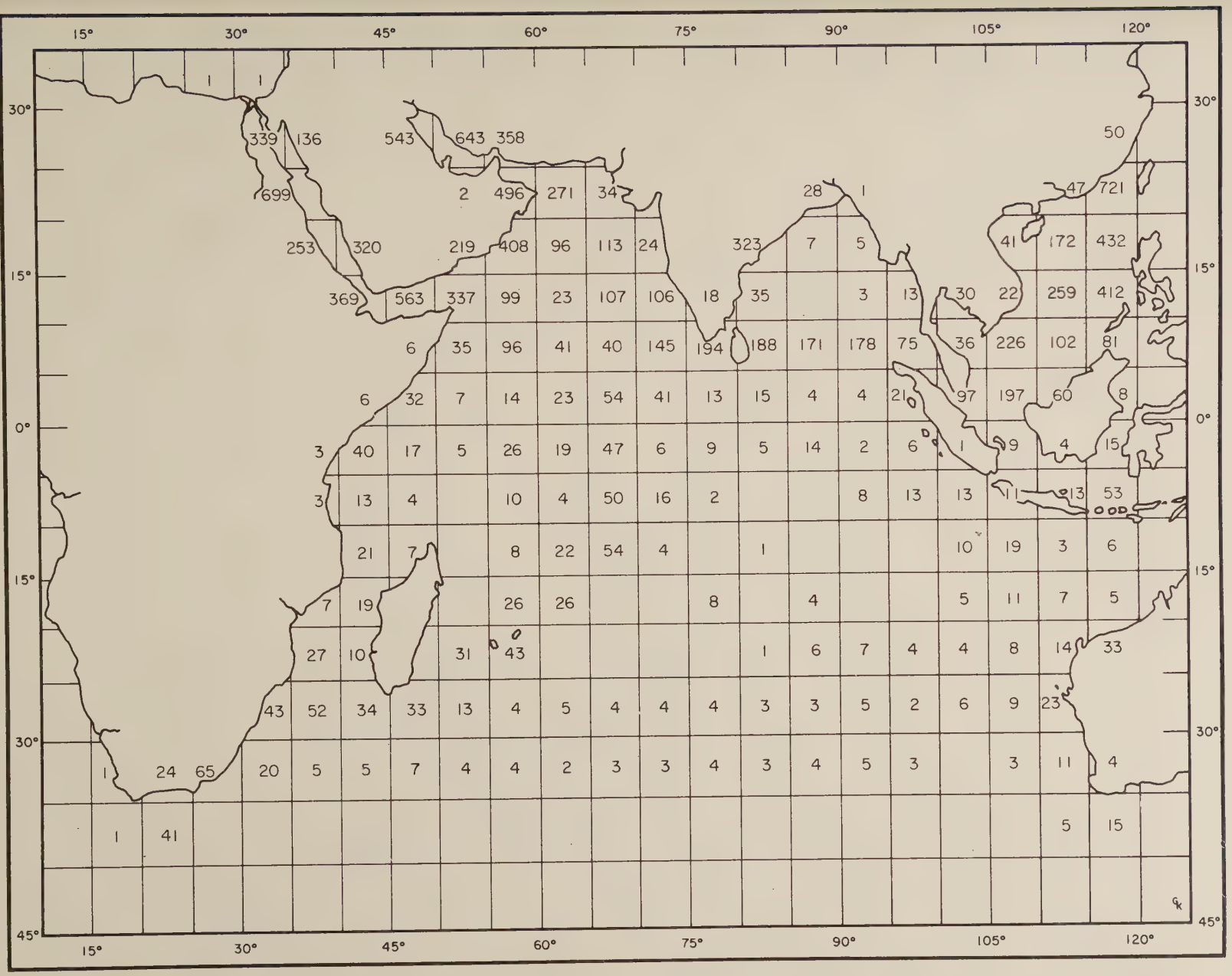

CHART 37. Bathythermograph observations, Indian Ocean, 1941–1958; total, 12,750

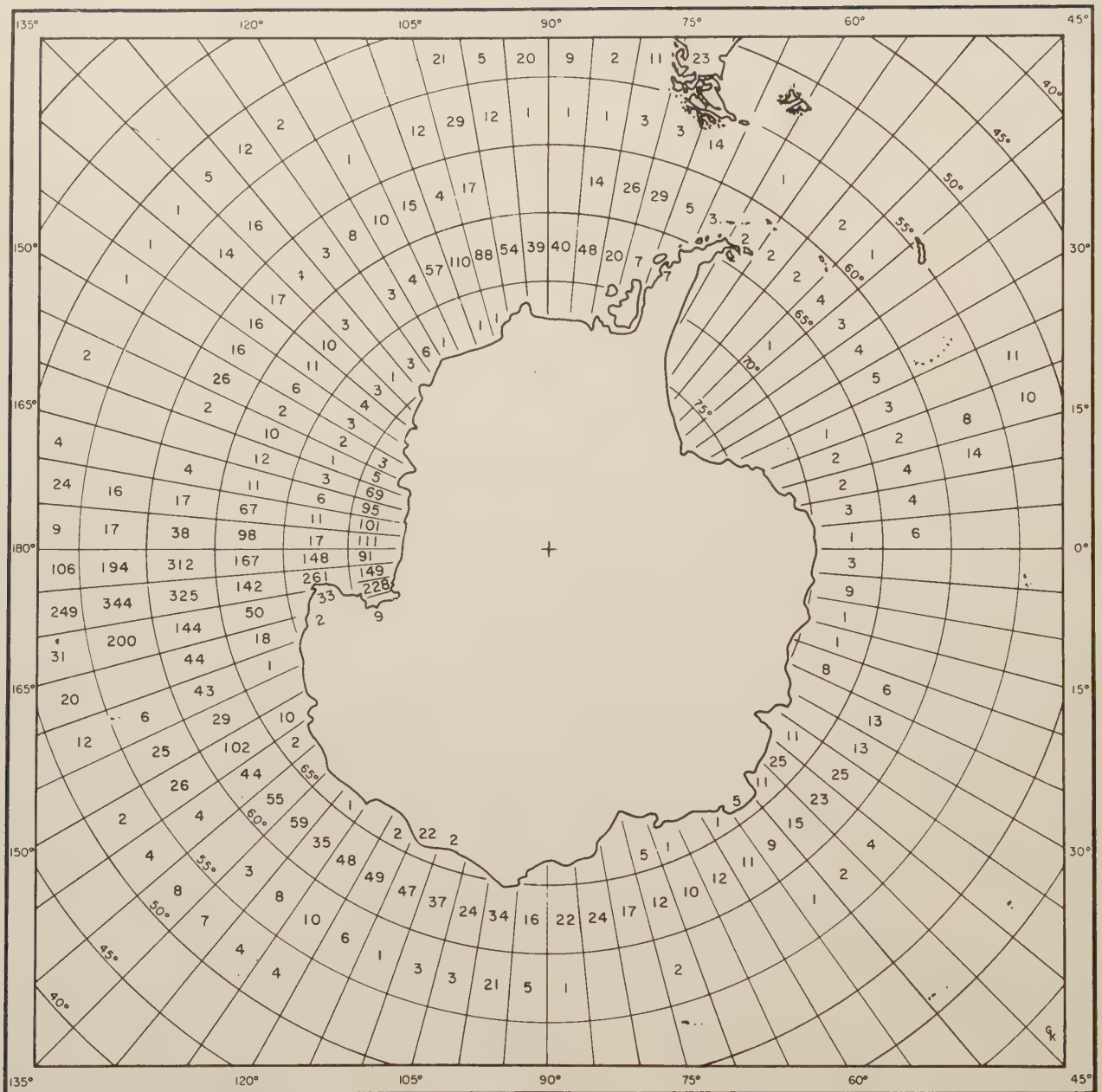

CHART 38. Bathythermograph observations, Antarctic Ocean, 1941–1958; total, 6, 222

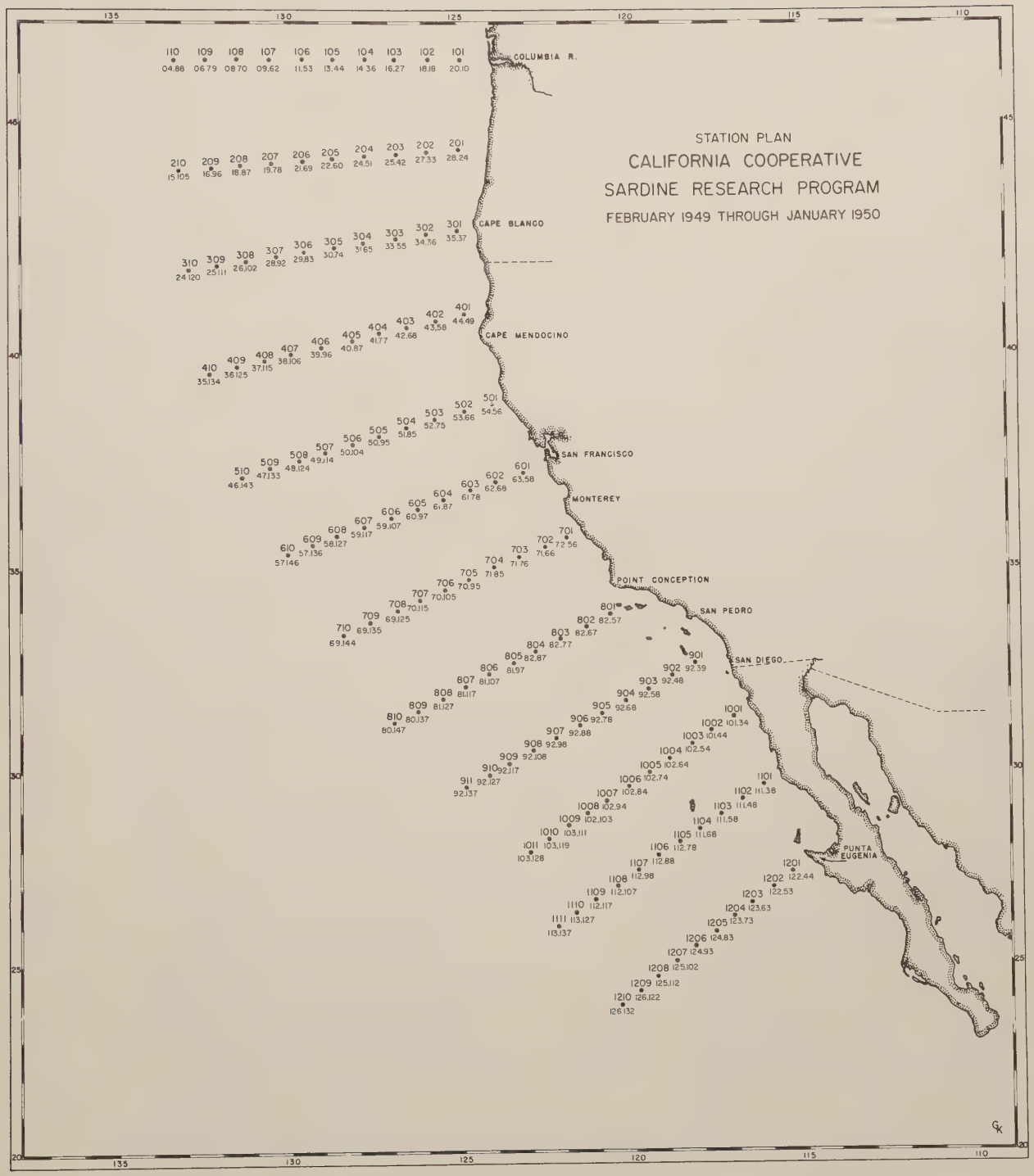

CHART 39. Station plan of the California Cooperative Oceanic Fisheries Investigations (formerly California Cooperative Sardine Research Program) from February, 1949, to January, 1950, inclusive, with equivalent numbers according to present station numbering system

Explanation of Tables

SIDE RUNNING HEADS

Cruise-identifying information is shown in the margin near the top of the page. The first line is an abbreviation of the name of the organization responsible for the data. The second and third lines give the cruise identification. In the case of data collected in the California Cooperative Oceanic Fisheries Investigations research program, for example, CCOFI 5801 signifies the January cruise of 1958.

Individual station numbers are given in the margin opposite the station data. The letter "D" preceding the number indicates a drogue station. Raised numbers for the CCOFI stations indicate a position between lines or between stations of the standard station pattern. Station locations are shown in the appropriate position charts.

HEADINGS OF GROUPS OF COLUMNS

OBSERVED: Corrected data at accepted depths of observation.

INTERPOLATED: Data at standard depths, interpolated from smooth distribution curves or by machine-interpolation programs (see Notes on Particular Cruises). The standard depths are those selected by the agencies.

COMPUTED: The results of computations based, in general, on interpolated values.

COLUMN HEADINGS

Z	Depth in meters at which observation was made or an interpolated value obtained.
T	Temperature of water in degrees Celsius.
S	Salinity of water in grams per kilogram (‰).
O_2	Concentration of dissolved oxygen in milliliters per liter (ml/L).
PO_4-P	The phosphorus (expressed in microgram atoms per liter, μg at/L, or micromoles per liter) that reacts with acidified molybdate within a few minutes at room temperature. It will be largely inorganic orthophosphate but the figures include any acid soluble phosphate adsorbed onto particles and any organically combined phosphorus that is very rapidly hydrolyzed in cold water.
SiO_3-Si	The silicic acid in sea water that is reactive to acidified molybdate at room temperature, expressed in microgram atoms per liter (μg at/L) or micromoles per liter.
NO_2-N	Concentration of dissolved inorganic nitrite nitrogen in microgram atoms per liter (μg at/L) or micromoles per liter.
NO_3-N	Concentration of dissolved inorganic nitrate nitrogen in microgram atoms per liter (μg at/L) or micromoles per liter.
NH_3-N	Concentration of ammonia nitrogen in microgram atoms per liter (μg at/L).
pH	Negative logarithm of the hydrogen ion concentration.
pH in situ	Measured pH corrected for the in situ temperature and pressure of the sample.
Alk.	Alkalinity is defined as the number of milliequivalents of hydrogen ion that are neutralized by one kg of sea water at 20°C when a large excess of acid is added.
Total Alk.	The number of milliequivalents of hydrogen ion that are neutralized by one liter of sea water at 20°C when a large excess of strong acid is added.
Carb. Alk.	The number of milliequivalents of hydrogen ion that are neutralized by one liter of sea water at 20°C in converting all carbonate and bicarbonate ions to carbon dioxide gas.
Sp. Alk.	The specific alkalinity of a sample defined by the ratio of total alkalinity to chlorosity.
Total Reactive Iron	The iron in sea water in microgram atoms per liter (μg at/L) that is converted to a reactive ionic condition by an arbitrary treatment with hydrochloric acid. This treatment is designed to attack only those ferric iron compounds likely to be immediately available to growing phytoplankters.
Part. Reactive Iron	The particulate fraction of the reactive iron, that fraction withheld on filtering a sample through a 0.5-micron-pore-size membrane filter, expressed in microgram atoms per liter (μg at/L).

Sol. Reactive Iron — The soluble fraction of the reactive iron, that fraction passing through the membrane filter, expressed in microgram atoms per liter (μg at/L).

Total Phosphorus — Amount of total phosphorus in microgram atoms per liter or micromoles per liter, irrespective of the form of combination of the element.

Part. Phosphorus — The phosphorus in microgram atoms per liter contained in the material held on a 0.5-micron-millipore filter.

Org. Phosphorus — The phosphorus in microgram atoms per liter that passes a 0.5-micron filter but does not react in three minutes with cold acidified molybdate. The material is probably largely organically combined phosphorus in true solution but it could include ultra-fine colloidal detritus and condensed polyphosphates, if these latter exist in sea water.

σ_t — Sigma-t in grams per liter (g/L). Sigma-t can be defined

$$\sigma_t = 1000\ (\rho_{ST0} - 1)$$

where ρ_{ST0} is the density, in grams per milliliter, of water of salinity, S, temperature, T, and at standard atmospheric pressure. Density is expressed in these units to be consistent with the tables used for the computations.

δ — Specific volume anomaly, in centiliters per ton (cl/ton), although most of the column headings state $10^{-5}cm^3/g$. The difference between the two units is negligible in these data (Pollak, 1961), but the correct units are centiliters per ton (or $10^{-5}ml/g$). Specific volume anomaly is defined as the difference between the specific volume of the water at a specified depth and the specific volume of a standard water with salinity of 35‰ and temperature of 0°C at the same depth. Specific volume anomaly is expressed in these units to be consistent with the tables used for the computations.

δ_T — Thermosteric anomaly, the pressure-independent part of the specific volume anomaly. Specific volume anomaly is defined

$$\delta = \alpha_{stp} - \alpha_{35,0,p}$$

and is computed as

$$\delta = \Delta_{st} + \delta_{sp} + \delta_{tp}$$

The quantity Δ_{st} has been discussed by Sverdrup, Johnson and Fleming (1946, p. 58) and approximately represents potential specific volume anomaly. It is used here with the name (thermosteric anomaly), symbol (δ_T) and unit (centiliter per ton) suggested by Montgomery and Wooster (1954) although most of the column headings state $10^{-5}cm^3/g$. The difference between the two units is negligible in these data (Pollak, 1961), but the correct units are centiliters per ton.

ΔD — Geopotential anomaly, in dynamic meters (dynamic height), of the layer of water between the surface and the designated standard pressure. Geopotential anomaly is the difference between the geopotential thickness of the observed layer and the geopotential thickness of a layer bounded by the same pressures but having standard temperature, 0°C, and salinity, 35‰. The tabulated anomaly is determined from an approximation of the integral

$$\Delta D = \int_0^{p_z} \delta\ dp$$

where p is pressure in decibars (assumed equal to depth in meters) and subscript z denotes the value at the bottom of the layer under consideration. Since geopotential thickness is the product of geometrical thickness and the acceleration of gravity, a dynamic meter is equal to 10^5 ergs per gram and is the change in geopotential over a vertical distance of approximately 1.02 meter.

SUPPLEMENTARY STATION INFORMATION

Supplementary information about each station is to be found just above the tabulated data. This information includes name of ship, date and time of observation, geographical location of station, depth of water, wind direction and force (usually Beaufort scale), a description of surface weather and sea state, and wire angle. When there is more than one cast on a station, messenger times and wire angles are given for the casts in the order of increasing depth.

NOTES ON THE TABULATION OF DATA

1. Observed temperatures obtained by thermograph, bucket thermometer or bathythermograph are reported only to tenths of a degree. Temperatures by reversing thermometer are reported to hundredths of a degree.

2. Observed salinities determined by the Knudsen method are reported to hundredths of a part per mille. Observed values determined by conductivity bridge are reported to thousandths of a part per mille.

3. Missing observed values are indicated by a hyphen (-).

4. Extrapolated values and values interpolated between remote observations are entered within parentheses.

5. Observed data from different casts are separated by a blank line.

6. The following notations have been used where appropriate.

For premature or delayed closure of water bottle and reversal of thermometers:

p pretrip or posttrip

For values which are not used in interpolation because they seem to be in error:

r rejected value

u uncertain value

SIO
CCOFI
5801

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m

60.55

BLACK DOUGLAS; January 14, 1958; 0155 GCT; 37°47.5'N, 123°15'W; sounding, 60 fm; wind, 290°, force 4; weather, partly cloudy; sea, very rough; wire angle, 06°.

0	12.69	32.95	6.00	307	0	12.69	32.95	6.00	24.89	307	0.00
10	12.68	32.98	5.86	305	10	12.68	32.98	5.86	24.91	305	0.03
29	12.96	33.26	5.79	289	20	12.78	33.12	5.83	25.02	294	0.06
48	13.12	33.36	5.89	285	30	13.00	33.28	5.81	25.08	289	0.09
72	11.82	33.44	4.88	255	50	13.14	33.37	5.80	25.14	284	0.15
95	11.16	33.46	4.60	242	75	11.73	33.44	4.83	25.45	254	0.21
					100	(11.00)	(33.46)	(4.51)	(25.60)	(239)	(0.28)

60.60

BLACK DOUGLAS; January 14, 1958; 0520 GCT; 37°37'N, 123°37'W; sounding, 1600 fm; wind, 280°, force 4; weather, partly cloudy; sea, rough; wire angle, 04°.

0	13.50	33.40	6.03	290	0	13.50	33.40	6.03	25.07	290	0.00
10	13.50	33.40	6.08	290	10	13.50	33.40	6.08	25.07	290	0.03
29	13.50	33.40	6.07	290	20	13.50	33.40	6.08	25.07	290	0.06
44	13.50	33.41	5.98	288	30	13.50	33.40	6.07	25.07	290	0.09
53	13.32	33.40	5.94	286	50	13.41	33.40	5.94	25.10	287	0.14
62	11.83	33.39	5.39	259	75	10.90	33.45	4.86	25.61	239	0.21
72	11.18	33.43	5.00	245	100	9.87	33.55	4.31	25.86	215	0.27
92	9.97	33.52	4.44	218	150	9.32	33.74	3.49	26.10	192	0.37
106	9.86	33.68a)	4.29		200	8.59	33.92	2.88	26.36	167	0.46
120	9.72	33.64	3.93	206	250	8.10	34.05	2.10	26.54	150	0.54
143	9.41	33.72	3.64	195	300	7.68	34.13	1.56	26.66	139	0.62
169	9.15	33.80	3.07	185	400	6.69	34.18	1.05	26.84	122	0.75
206	8.48	33.93	2.85	166	500	5.79	34.22	0.68	26.99	108	0.87
255	8.04	34.07	2.00	149							
331	7.31	34.16	1.32	132							
427	6.42	34.18	0.96	119							
564	5.28	34.27	0.47	99							

63.52

BLACK DOUGLAS; January 16, 1958; 0527 GCT; 37°19'N, 122°36'W; sounding, 48 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 03°.

0	13.24	33.43	5.99	282	0	13.24	33.43	5.99	25.16	282	0.00
10	13.24	33.42	6.01	283	10	13.24	33.42	6.01	25.15	283	0.03
30	13.24	33.42	6.12	283	20	13.24	33.42	6.06	25.15	283	0.06
49	12.65	33.46b)	5.19	269	30	13.24	33.42	6.12	25.15	283	0.08
72	11.21	33.49	5.54	241	50	12.60	33.46	5.14	25.30	268	0.14
					71	(11.00)	(33.49)	(4.47)	(25.63)	(237)	(0.20)

63.60

BLACK DOUGLAS; January 16, 1958; 0953 GCT; 37°02.5'N, 123°11.5'W; sounding, 1700 fm; wind, 300°, force 4; weather, missing; sea, moderate; wire angle, 03°.

0	13.68	33.51	5.73	286	0	13.68	33.51	5.73	25.12	286	0.00
10	13.66	33.99	5.85	286	10	13.66	33.49	5.85	25.11	286	0.03
29	13.67	33.52	5.85	284	20	13.66	33.51	5.85	25.12	285	0.06
44	13.64	33.51	5.84	284	30	13.67	33.52	5.84	25.13	284	0.08
54	13.68	33.50	5.80	286	50	13.68	33.50	5.82	25.12	286	0.14
64	13.65	33.52b)	5.71	283	75	12.70	33.48	5.46	25.30	269	0.21
73	12.90	33.48	5.53	272	100	10.75	33.59	4.04	25.74	226	0.28
91	11.06	33.57	4.20	233	150	9.36	33.79	3.08	26.13	189	0.38
105	10.62	33.59	4.04	224	200	8.39	33.96	2.59	26.43	161	0.47
119	9.96	33.62	3.94	210	250	7.78	34.04	2.35	26.58	147	0.55
141	9.29	33.69	3.42	195	300	7.18	34.08	1.92	26.70	136	0.62
168	8.76	33.85	2.89	176	400	6.41	34.20	0.89	26.89	117	0.75
203	8.35	33.97	2.55	160	500	5.95	34.27	0.66	27.00	106	0.87
252	7.72	34.04	2.33	146							
330	6.88	34.11	1.53	130							
427	6.32	34.22	0.81	114							
564	5.58	34.30	0.55	100							

a) Loose bottle cap; value does not fall on property curve.
b) Possible evaporation; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

67.55 BLACK DOUGLAS; January 9, 1958; 1740 GCT; 36°39'N, 122°26'W; sounding, 1100 fm; wind, 140°, force 3; weather, cloudy; sea, very rough; wire angle, 02°.

0	13.69	33.51	5.78	285	0	13.69	33.51	5.78	25.12	285	0.00
10	13.67	33.48	5.97	287	10	13.67	33.48	5.97	25.10	287	0.03
29	13.54	33.47	5.72	285	20	13.62	33.48	5.77	25.11	286	0.06
39	13.44	33.46	3.75r	284	30	13.53	33.47	5.72	25.12	285	0.08
59	13.05	33.45	5.32	278	50	13.30	33.46	5.59	25.17	281	0.14
69	11.68	33.42	4.84	255	75	11.31	33.45	4.64	25.53	246	0.21
82	10.98	33.49	4.30	237	100	10.10	33.50	4.32	25.78	222	0.27
96	10.28	33.48	4.42	227	150	9.00	33.80		26.20	183	0.37
108	9.86	33.55	4.12	215	200	8.30	33.96	2.30	26.43	161	0.46
131	9.14	33.61	3.00r	199	250	8.23	34.14	1.58	26.58	146	0.54
157	8.99	33.86	4.06r	178	300	7.53	34.20	1.40	26.74	132	0.61
187	8.48	33.93	2.59	165	400	6.70	34.18	0.89	26.84	122	0.74
231	8.16	34.07	1.92	150	500	6.02	34.23	0.68	26.96	110	0.86
304	7.45	34.20	1.37	131							
395	6.73	34.18a)	0.90	122							
518	5.85	34.24	0.65	108							

67.60 BLACK DOUGLAS; January 9, 1958; 2115 GCT; 36°29'N, 122°47.5'W; sounding, 1600 fm; wind, 120°, force 5; weather, cloudy; sea, very rough; wire angle, 14°.

0	13.99	33.48	6.14	293	0	13.99	33.48	6.14	25.04	293	0.00
10	13.99	33.48	6.24	293	10	13.99	33.48	6.24	25.04	293	0.03
28	13.94	33.49	5.84	291	20	13.97	33.48	5.85	25.04	292	0.06
38	13.95	33.49	5.87	292	30	13.95	33.49	5.85	25.06	291	0.09
47	13.96	33.53	5.84	290	50	13.85	33.52	5.71	25.10	287	0.14
56	12.88	33.47	5.00	273	75	11.62	33.59	3.98	25.59	241	0.21
65	12.23	33.58	4.23	253	100	10.42	33.56	4.33	25.78	223	0.27
78	11.36	33.59	3.96	236	150	8.74	33.83	3.33	26.26	176	0.37
91	10.64	33.50	4.44	231	200	8.14	33.99	2.43	26.48	156	0.46
104	10.30	33.60	4.03	218	250	7.49	34.06	2.00	26.64	142	0.53
124	9.22	33.65	3.87	197	300	7.01	34.11	1.51	26.74	132	0.60
148	8.76	33.81	3.37	178	400	6.45	34.18	0.93	26.87	119	0.73
178	8.40	33.96	2.57	162	500	(5.95)	(34.28)	(0.53)	(27.01)	(106)	(0.85)
220	7.84	34.02	2.28	150							
288	7.11	34.09	1.58	134							
376	6.60	34.16	1.04	122							
494	5.98	34.27	0.58	107							

70.70 BLACK DOUGLAS; January 17, 1958; 1555 GCT; 35°32'N, 123°17'W; sounding, 2000 fm; wind, 390°, force 6; weather, fog; sea, very rough; wire angle, 08°.

0	13.33	33.13		306	0	13.33	33.13		24.91	306	0.00
10	13.32	33.12		307	10	13.32	33.12		24.90	307	0.03
29	13.28	33.15		304	20	13.30	33.14		24.92	305	0.06
44	13.10	33.18		298	30	13.27	33.15		24.94	303	0.09
53	13.08	33.22		295	50	13.10	33.22		25.01	296	0.15
62	12.20	33.23		278	75	10.65	33.16		25.42	256	0.22
72	10.92	33.15		261	100	9.43	33.41		25.82	218	0.28
90	9.64	33.28		231	150	8.87	33.84		26.25	178	0.38
104	9.08	33.44		211	200	8.30	34.05		26.51	153	0.46
117	9.00	33.58		199	250	7.69	34.07		26.61	143	0.54
139	8.94	33.78		183	300	7.29	34.12		26.70	135	0.61
163	8.78	33.94		169	400	6.60	34.21		26.88	118	0.74
197	8.38	34.04		155	500	5.93	34.25		26.98	108	0.86
245	7.79	34.07		145							
323	7.09	34.15		130							
421	6.50	34.22		117							
561	5.48	34.26		102							

a) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

BLACK DOUGLAS; January 17, 1958; 0940 GCT; 35°13'N, 123°48'W; sounding, 2000 fm; wind, 320°, force 5; weather, fog; sea, very rough; wire angle, 20°. 70.80

0	13.66	33.12		313	0	13.66	33.12		24.82	313	0.00
9	13.68	33.13		313	10	13.68	33.13		24.83	313	0.03
27	13.65	33.14		312	20	13.66	33.14		24.84	312	0.06
41	13.64	33.21		306	30	13.64	33.16		24.86	310	0.09
50	13.72	33.27		304	50	13.72	33.27		24.93	304	0.16
59	13.14	33.30		290	75	10.69	33.46		25.66	234	0.22
67	11.08	33.33		251	100	10.15	33.69		25.92	209	0.28
83	10.44	33.62		219	150	9.46	33.87		26.18	185	0.38
95	-	33.68			200	8.93	34.02		26.39	165	0.47
108	10.02	33.71		205	250	8.40	34.11		26.54	150	0.55
127	9.72	33.78		195	300	8.03	34.19		26.65	140	0.62
151	9.44	33.87		184							
183	9.12	33.98		171							
228	8.60	34.08		156							
300	8.03	34.19		140							

BLACK DOUGLAS; January 17, 1958; 0305 GCT; 34°53'N, 124°30'W; sounding, 2000 fm; wind, 300°, force 4; weather, fog; sea, high; wire angle, 15°. 70.90

0	13.61	33.13		311	0	13.61	33.13		24.85	311	0.00
10	13.62	33.15		310	10	13.62	33.15		24.86	310	0.03
29	13.64	33.20		307	20	13.63	33.18		24.88	308	0.06
43	13.62	33.22		305	30	13.63	33.20		24.89	307	0.09
52	13.22	33.23		297	50	13.37	33.23		24.97	299	0.15
62	12.42	33.24		282	75	11.09	33.22		25.39	260	0.22
71	11.39	33.21		265	100	9.28	33.38		25.82	218	0.28
91	10.06	33.28		238	150	8.85	33.78		26.20	182	0.39
105	9.08	33.41		213	200	8.01	33.92		26.45	159	0.47
119	9.14	33.54		204	250	7.39	33.96		26.56	148	0.55
141	8.92	33.72		187	300	6.85	34.00		26.67	138	0.62
168	8.72	33.84		176	400	6.57	34.12		26.82	124	0.76
203	7.96	33.92		158	500	6.10	34.22		26.95	112	0.88
250	7.39	33.96		148							
326	6.61	34.02		133							
435	6.51	34.20		118							
570	5.64	34.22		106							

BLACK DOUGLAS; January 19, 1958; 2113 GCT; 35°27.5'N, 121°37.5'W; sounding, 550 fm; wind, calm; weather, cloudy; sea, rough; wire angle, 00°. 73.55

0	14.12	33.57	6.17	289	0	14.12	33.57	6.17	25.08	289	0.00
10	13.88	33.53	6.19	287	10	13.88	33.53	6.19	25.10	287	0.03
29	13.87	33.55	6.03	285	20	13.88	33.54	6.10	25.11	286	0.06
39	13.81	33.56	6.05	284	30	13.87	33.55	6.05	25.12	285	0.09
49	13.82	33.60	5.96	281	50	13.82	33.60	5.96	25.17	281	0.14
59	13.80	33.60	5.95	281	75	12.46	33.55	4.85	25.39	259	0.21
68	13.14	33.55	5.35	271	100	10.50	33.62	3.83	25.81	219	0.27
82	11.62	33.57	4.28	243	150	9.01	33.94	2.79	26.30	173	0.37
96	10.66	33.60	3.89	224	200	8.50	34.05	2.24	26.48	156	0.45
110	10.12	33.67	3.68	210	250	7.74	34.08	2.02	26.62	143	0.53
133	9.59	33.85	2.95	188	300	7.35	34.11	1.75	26.69	136	0.60
159	8.74	33.96	2.74	167	400	6.72	34.16	0.97	26.82	124	0.74
191	8.64	34.03	2.34	160	500	6.17	34.26	0.72	26.97	110	0.86
233	7.96	34.07	2.14	147							
306	7.33	34.11	1.74	136							
397	6.74	34.15	0.99	125							
517	6.05	34.27	0.67	108							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_3^{-5}	Z	T	S	O_2	σ_t	δT_3^{-5}	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m
73.60	BLACK DOUGLAS; January 19, 1958; 1815 GCT; 35°17'N, 121°57'W; sounding, 500 fm; wind, 140°, force 2; weather, clear; sea, moderate; wire angle, 05°.										
0	13.59	33.48	5.94	286	0	13.59	33.48	5.94	25.11	286	0.00
10	13.60	33.46	6.12	287	10	13.60	33.46	6.12	25.10	287	0.03
29	13.60	33.49	6.08	284	20	13.60	33.47	6.11	25.11	286	0.06
39	12.88	33.42	5.64	276	30	13.59	33.49	6.07	25.13	284	0.08
48	11.60	33.37	5.16	257	50	11.43	33.38	5.12	25.46	253	0.14
58	11.14	33.40	4.97	247	75	10.43	33.48	4.64	25.71	229	0.20
67	10.78	33.45	4.79	237	100	9.17	33.68	3.92	26.08	194	0.25
81	10.06	33.50	4.61	222	150	8.84	33.90	3.06	26.30	173	0.35
94p	9.29	33.66	4.04	197	200	8.00	33.98	2.65	26.50	154	0.43
123p	8.96	33.76	3.57	185	250	7.44	34.08	2.07	26.66	140	0.50
165p	8.51	33.91	3.05	167	300	7.00	34.15	1.62	26.77	128	0.57
233p	7.60	34.05	2.21	144	400	6.28	34.16	1.08	26.88	118	0.70
321p	6.84	34.16	1.45	125							
434p	6.00	34.16	0.95	115							
77.55	BLACK DOUGLAS; January 19, 1958; 0835 GCT; 34°54.5'N, 121°13'W; sounding, 290 fm; wind, 030°, force 4; weather, clear; sea, moderate; wire angle, 15°.										
0	13.86	33.55	5.87	286	0	13.86	33.55	5.87	25.11	286	0.00
9	13.85	33.55	6.15	286	10	13.85	33.55	6.15	25.11	286	0.03
28	13.85	33.53	6.12	286	20	13.85	33.54	6.14	25.11	286	0.06
46	13.22	33.49	5.95	278	30	13.84	33.53	6.11	25.11	286	0.08
69	10.88	33.51	4.74	234	50	12.82	33.49	5.82	25.27	271	0.14
91	10.40	33.50	4.75	227	75	10.70	33.50	4.74	25.69	231	0.20
113	10.10	33.64	3.83	212	100	10.28	33.52	4.60	25.77	223	0.26
148	9.46	33.84a)	3.49	187	150	9.41	33.87	3.46	26.19	184	0.36
184	8.48	34.09	2.98	154	200	8.28	34.08	2.77	26.54	151	0.45
228	8.06	34.07	2.54	149	250	7.93	34.08	2.44	26.58	146	0.53
273	7.78	34.11	2.26	142	300	7.51	34.16	1.95	26.71	134	0.60
368	7.12	34.23	1.07	124							
77.60	BLACK DOUGLAS; January 19, 1958; 1237 GCT; 34°44'N, 121°34'W; sounding, 500 fm; wind, 320°, force 1; weather, clear; sea, moderate; wire angle, 10°.										
0	14.37	33.60	5.88	292	0	14.37	33.60	5.88	25.05	292	0.00
10	14.36	33.60	5.92	292	10	14.36	33.60	5.92	25.05	292	0.03
29	19.38	33.62	5.89	291	20	14.37	33.61	5.90	25.06	291	0.06
38	14.32	33.63	5.94	289	30	14.38	33.62	5.90	25.06	291	0.09
48	13.92	33.60	5.77	283	50	13.75	33.60	5.66	25.18	280	0.14
57	12.55	33.64	4.20	254	75	10.91	33.72	3.45	25.82	219	0.21
67	11.52	33.67	3.73	234	100	10.20	33.83	2.90	26.03	199	0.26
81	10.58	33.76	3.24	210	150	9.72	33.97	2.46	26.22	181	0.36
108	10.08	33.86	2.81	195	200	9.40	34.06	2.40	26.34	169	0.44
130	9.88	33.91	2.64	188	250	8.90	34.15	1.98	26.49	155	0.53
157	9.66	33.99	2.44	179	300	8.52	34.22	1.61	26.60	144	0.60
186	9.54	34.04	2.46	173	400	7.39	34.22	1.32	26.78	128	0.75
229	9.08	34.11	2.14	101	500	6.70	34.24	0.48	26.89	117	0.87
300	8.52	34.22	1.61	144							
389	7.46	34.22	1.36	130							
508	6.62	34.25	0.36	116							
80.51	BLACK DOUGLAS; January 20, 1958; 0650 GCT; 34°26.5'N, 120°32.5'W; sounding, 59 fm; wind, 040°, force 3; weather, clear; sea, rough; wire angle, 04°.										
0	15.41	33.64	6.00	311	0	15.41	33.64	6.00	24.85	311	0.00
9	15.40	33.64	6.07	310	10	15.40	33.64	6.05	24.86	310	0.03
29	13.83	33.54	5.34	286	20	15.00	33.60	5.92	24.91	305	0.06
48	13.47	33.53a)	5.14	280	30	13.81	33.54	5.33	25.12	285	0.09
72	12.08	33.58	4.32	250	50	13.44	33.53	5.06	25.19	279	0.15
					75	(11.86)	(33.60)		(25.54)	(245)	(0.21)

a) Possible evaporation; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10 cm/g	ΔD dyn. m

BLACK DOUGLAS; January 20, 1958; 0920 GCT; 34°19'N, 120°48'W; sounding, 420 fm; wind, 320°, force 3; weather, clear; sea, slight; wire angle, 07°. 80.55

0	14.18	33.58	6.07	289	0	14.18	33.58	6.07	25.08	289	0.00
10	14.16	33.58	6.17	289	10	14.16	33.58	6.17	25.08	289	0.03
29	14.01	33.66u	5.97		20	14.10	33.58	6.08	25.10	288	0.06
38	13.83	33.58	5.81	283	30	14.00	33.58	5.94	25.11	286	0.09
47	12.41	33.53	4.90	260	50	12.21	33.52	4.86	25.42	256	0.14
57	11.85	33.51	4.83	251	75	11.13	33.57	4.39	25.66	234	0.20
66	11.41	33.54	4.58	241	100	10.50	33.61	3.95	25.81	220	0.26
80	11.00	33.58	4.33	231	150	9.57	33.99	2.54	26.26	177	0.36
94	10.69	33.59	4.10	225	200	9.13	34.07	2.08	26.39	164	0.45
107	10.28	33.64	3.81	215	250	8.77	34.13	1.68	26.49	154	0.53
130	9.78	33.83	2.97	192	300	8.14	34.16	1.46	26.61	144	0.60
156	9.54	34.00	2.50	176	400	7.00	34.18	1.15	26.80	126	0.74
187	9.23	34.04	2.23	168	500	6.23	34.21	0.75	26.92	114	0.87
231	8.95	34.11	1.81	159							
302	8.13	34.16	1.44	143							
393	7.06	34.18	1.18	127							
514	6.16	34.21	0.72	103							

BLACK DOUGLAS; January 20, 1958; 1245 GCT; 34°09'N, 121°09'W; sounding, 1200 fm; wind, 310°, force 3; weather, partly cloudy; sea, rough; wire angle, 20°. 80.60

0	14.46	33.66	6.40	289	0	14.46	33.66	6.40	25.08	289	0.00
9	14.45	33.64	5.90	290	10	14.45	33.64	5.90	25.07	290	0.03
28	14.46	33.68	5.94	288	20	14.46	33.66	5.92	25.08	288	0.06
37	14.23	33.64	5.85	286	30	14.42	33.67	5.92	25.10	287	0.09
46	13.83	33.60	5.59	281	50	13.33	33.58	5.27	25.24	274	0.14
55	11.82	33.54	4.61	247	75	10.62	33.67	3.65	25.83	218	0.20
63	10.97	33.60	4.03	228	100	10.06	33.84	2.97	26.06	196	0.26
76	10.60	33.68	3.62	217	150	9.39	34.06	2.29	26.34	169	0.35
88	10.19	33.82	3.31	200	200	8.90	34.12	1.99	26.46	158	0.43
100	10.06	33.84	2.97	196	250	8.33	34.23	1.46	26.64	141	0.51
120	9.99	33.91	2.89	190	300	7.90	34.25	1.25	26.72	133	0.58
145	9.44	34.05	2.36	171	400	7.00	34.25	0.80	26.85	121	0.71
182	9.10	34.08	2.16	164	500	(6.09)	(34.30)	(0.53)	(27.02)	(105)	(0.83)
217	8.69	34.16	1.70	151							
283	8.05	34.25	1.34	135							
368	7.28	34.24	0.93	126							
484	6.22	34.29	0.55	108							

BLACK DOUGLAS; January 20, 1958; 1910, 1940 GCT; 33°47'N, 121°52'W; sounding, 2000 fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 26°, 15°. 80.70

0	14.05	33.58		287	0	14.05	33.58		25.10	287	0.00
8	14.06	33.55		289	10	14.05	33.55		25.08	289	0.03
26	14.03	33.55		288	20	14.05	33.55		25.08	289	0.06
40	14.02	33.57		287	30	14.03	33.55		25.09	288	0.09
48	13.99	33.56		287	50	13.97	33.55		25.10	287	0.14
57	13.92	33.55		287	75	11.88	33.35		25.36	263	0.21
66	12.59	33.37		274	100	10.10	33.36		25.67	233	0.28
83	11.35	33.34		255	150	8.79	33.73		26.18	185	0.38
					200	8.02	33.95		26.47	157	0.47
98	10.20	33.35		235	250	7.43	34.04		26.62	142	0.54
112	9.66	33.42		221	300	6.92	34.12		26.76	130	0.62
132	9.30	33.60		202	400	6.10	34.18		26.91	115	0.74
158	8.61	33.77		179	500	5.70	34.24		27.01	106	0.86
193	8.10	33.94		159							
240	7.55	34.02		146							
314	6.77	34.14		126							
412	6.04	34.18		114							
541	5.54	34.27		101							

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5801

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
80.80	BLACK DOUGLAS; January 21, 1958; 0105 GCT; 33°29'N, 122°32'W; sounding, 2000 fm; wind, 330°, force 5; weather, partly cloudy; sea, very rough; wire angle, 12°.										
0	14.98	33.40		320	0	14.98	33.40		24.76	320	0.00
10	14.99	33.39		320	10	14.99	33.39		24.76	320	0.03
34	15.00	33.41		319	20	15.00	33.40		24.76	320	0.06
43	15.00	33.39		320	30	15.00	33.41		24.77	319	0.10
57	15.00	33.39		320	50	15.00	33.39		24.76	320	0.16
66	14.98	33.38		320	75	14.96	33.39		24.77	319	0.24
75	14.96	33.39		319	100	13.70	33.40		25.02	295	0.32
93	14.30	33.40		305	150	9.83	33.51		25.84	216	0.44
110	12.60	33.39		273	200	8.83	33.94		26.34	170	0.54
124	10.95	33.39		244	250	8.10	34.02		26.51	153	0.63
146	9.92	33.49		219	300	7.45	34.08		26.65	140	0.70
181	9.12	33.80		185	400	6.67	34.18		26.84	122	0.84
217	8.64	33.99		163	500	5.95	34.25		26.98	108	0.96
271	7.78	34.04		147	600	(5.44)	(34.29)		(27.08)	(99)	(1.07)
352	7.02	34.14		129							
458	6.20	34.22		113							
599	5.46	34.29		99							
82.47	STRANGER; January 31, 1958; 1512 GCT; 34°13'N, 119°58'W; sounding, 307 fm; wind, 340°, force 2; weather, partly cloudy; sea, very rough; wire angle, 05°.										
0	15.32	33.67	5.59	306	0	15.32	33.67	5.59	24.90	306	0.00
10	14.93	33.62	5.76	303	10	14.93	33.62	5.76	24.94	303	0.03
29	14.52	33.62	5.57	294	20	14.67	33.61	5.57	25.00	297	0.06
54	14.50	33.63	5.90	293	30	14.52	33.62	5.58	25.03	294	0.09
64	13.78	33.64	5.25	277	50	14.51	33.63	5.83	25.04	293	0.15
73	12.22	33.61	4.65	251	75	12.00	33.62	4.50	25.53	246	0.22
83	11.66	33.63	4.14	239	100	11.09	33.67	3.91	25.74	226	0.28
96	11.24	33.66	4.01	229	150	10.07	33.88	2.92	26.04	194	0.38
110	10.74	33.74	3.52	215	200	9.48	34.07	2.30	26.34	170	0.47
128	10.47	33.81	3.22	205	250	8.98	34.15	1.64	26.48	156	0.56
146	10.17	33.87	3.01	196	300	8.33	34.21	1.30	26.62	143	0.64
169	9.83	33.96	2.64	184	400	7.20	34.25	0.91	26.82	124	0.77
191	9.58	34.05	2.40	173	500	6.63	34.29	0.35	26.93	113	0.90
236	9.14	34.13	1.77	160							
309	8.20	34.22	1.24	140							
400	7.20	34.25	0.91	124							
524	6.53	34.31	0.23	111							
83.43	STRANGER; January 31, 1958; 1815 GCT; 34°08'N, 119°34'W; sounding, 115 fm; wind, 340°, force 3; weather, partly cloudy; sea, rough; wire angle, 00°.										
0	15.81	33.69	5.67	316	0	15.81	33.69	5.67	24.80	316	0.00
10	15.84	33.68	5.73	317	10	15.84	33.68	5.73	24.79	317	0.03
29	15.82	33.69	5.65	316	20	15.83	33.68	5.70	24.80	316	0.06
49	14.62	33.58	5.28	299	30	15.81	33.69	5.64	24.80	316	0.09
73	11.88	33.60	4.29	244	50	14.49	33.58	5.23	25.00	296	0.16
97	10.90	33.78	3.29	214	75	11.81	33.60	4.22	25.56	244	0.22
120	10.11	33.88	2.69	194	100	10.76	33.81	3.15	25.91	210	0.28
148	9.78	33.94a)	2.44	184	150	(9.77)	(33.94)	(2.43)	(26.19)	(184)	(0.38)
83.51	STRANGER; January 31, 1958; 1117 GCT; 33°52'N, 120°08.5'W; sounding, 75 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 05°.										
0	15.55	33.64	5.86	313	0	15.55	33.64	5.86	24.83	313	0.00
10	15.59	33.66	5.78	313	10	15.59	33.66	5.78	24.83	313	0.03
29	14.72	33.60	5.55	299	20	15.53	33.66	5.73	24.85	311	0.06
49	13.59	33.52	5.21	282	30	14.68	33.60	5.54	24.98	298	0.09
73	11.96	33.53	4.59	251	50	13.52	33.52	5.19	25.16	281	0.15
98	11.16	33.58	4.22	233	75	11.89	33.53	4.56	25.49	250	0.22
					100	(11.10)	(33.58)	(4.20)	(25.69)	(231)	(0.29)

a) Possible evaporation; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

83.55

STRANGER; January 31, 1958; 0805 GCT; 33°44'N, 120°24.5'W; sounding, 650 fm; wind, 320°, force 5; weather, partly cloudy; sea, high; wire angle, 20°.

0	14.52	33.60	5.78	295	0	14.52	33.60	5.78	25.02	295	0.00
8	14.52	33.60	5.83	295	10	14.52	33.60	5.83	25.02	295	0.03
32	14.52	33.61	5.82	295	20	14.52	33.60	5.83	25.02	295	0.06
41	14.48	33.59	5.80	295	30	14.52	33.60	5.82	25.02	295	0.09
55	13.21	33.54	5.16	274	50	14.01	33.57	5.52	25.10	287	0.15
64	11.93	33.54	4.74	250	75	11.30	33.56	4.33	25.63	237	0.21
73	11.36	33.56	4.37	239	100	10.23	33.65	3.81	25.88	213	0.27
90	10.77	33.61	4.05	224	150	9.48	33.95	2.69	26.24	179	0.37
107	10.00	33.68	3.71	207	200	8.93	34.13	2.00	26.47	157	0.45
120	9.84	33.75	3.39	199	250	8.41	34.19	1.74	26.60	145	0.53
142	9.60	33.91	2.88	184	300	7.89	34.23	1.43	26.71	134	0.60
175	9.13	34.07	2.24	164	400	7.04	34.25	0.95	26.84	122	0.74
211	8.85	34.15	1.93	154	500	6.31	34.27	0.69	26.96	110	0.86
262	8.28	34.20	1.71	142	600	(5.80)	(34.38)		(27.11)	(96)	(0.97)
340	7.54	34.25	1.20	128							
445	6.64	34.25	0.84	116							
588	5.82	34.36	0.47	98							

83.60

STRANGER; January 31, 1958; 0420 GCT; 33°34'N, 120°45'W; sounding, 2300 fm; wind, 340°, force 6; weather, partly cloudy; sea, high; wire angle, 06°.

0	14.38	33.44	6.02	304	0	14.38	33.44	6.02	24.92	304	0.00
10	14.42	33.45	5.97	304	10	14.42	33.45	5.97	24.92	304	0.03
29	14.41	33.46	6.06	303	20	14.41	33.46	6.01	24.93	303	0.06
58	13.88	33.45	5.84	294	30	14.40	33.46	6.05	24.94	302	0.09
67	12.12	33.36	5.34	267	50	14.10	33.46	5.92	25.00	297	0.15
76	11.02	33.33	5.22	250	75	11.10	33.33	5.24	25.48	251	0.22
91	10.02	33.46	4.60	224	100	9.70	33.53	4.30	25.88	213	0.28
105	9.59	33.55	4.22	210	150	9.04	33.80	3.21	26.19	183	0.38
119	9.39	33.69	3.72	196	200	8.44	33.98	2.66	26.43	161	0.46
138	9.20	33.76	3.30	189	250	7.79	34.06	2.29	26.59	146	0.54
156	8.98	33.82	3.18	181	300	7.26	34.13	1.72	26.72	133	0.62
183	8.67	33.94	2.72	167	400	6.48	34.24	0.94	26.92	115	0.74
206	8.38	-	2.66		500	5.98	34.31	0.65	27.04	103	0.86
256	7.68	34.07	2.22	144							
333	6.91	34.17	1.34	126							
436	6.32	34.26	0.78	111							
570	5.62	34.37	0.57	95							

83.70

STRANGER; January 30, 1958; 2345 GCT; 33°17'N, 121°21'W; sounding, 2100 fm; wind, 340°, force 5; weather, partly cloudy; sea, high; wire angle, 09°.

0	14.07	33.49	5.97	294	0	14.07	33.49	5.97	25.03	294	0.00
10	14.08	33.49	6.12	294	10	14.08	33.49	6.12	25.03	294	0.04
29	13.96	33.49	5.94	292	20	14.04	33.49	6.00	25.04	293	0.07
58	13.86	33.48	5.89	290	30	13.95	33.49	5.93	25.05	292	0.10
68	13.24	33.49	5.67	278	50	13.93	33.48	5.90	25.06	291	0.16
77	11.16	33.36	5.01	250	75	11.71	33.39	5.19	25.42	257	0.22
92	10.27	33.40	4.64	233	100	10.28	33.54	4.17	25.79	222	0.29
105	9.85	33.55	4.03	214	150	8.65	33.82	3.11	26.27	176	0.39
119	9.30	33.58	3.81	204	200	8.00	33.97	2.37	26.49	155	0.47
137	8.80	33.78	3.28	181	250	7.54	34.05	1.97	26.62	144	0.55
155	8.61	33.84	3.08	174	300	7.03	34.10	1.50	26.72	133	0.62
181	8.22	33.92	2.68	162	400	6.30	34.17	0.81	26.89	118	0.75
204	7.96	33.98	2.28	154	500	5.77	34.24	0.50	27.01	106	0.86
252	7.54	34.05	1.96	143							
327	6.80	34.13	1.23	127							
428	6.14	34.19	0.70	114							
560	5.46	34.28	0.40	100							

SIO

CCOFI 5801

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{3}^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{3}^{-5} 10 cm/g	ΔD dyn. m

87.35 STRANGER; February 1, 1958; 0014 GCT; 33°50'N, 118°37.5'W; sounding, 295 fm; wind, 320°, force 2; weather, overcast; sea, rough; wire angle, 02°.

0	15.94	33.64	5.93	322	0	15.94	33.64	5.93	24.74	322	0.00
10	15.85	33.64	5.81	320	10	15.85	33.64	5.81	24.76	320	0.03
30	15.78	33.65	5.66	317	20	15.80	33.64	5.70	24.77	319	0.06
39	15.69	33.68	5.59	313	30	15.78	33.65	5.66	24.79	317	0.10
49	14.50	33.58	5.11	297	50	14.47	33.58	5.10	25.01	296	0.16
58	14.18	33.58	5.02	291	75	13.20	33.55	4.66	25.25	273	0.23
68	13.55	33.55	4.84	279	100	11.50	33.56	4.20	25.59	241	0.29
82	12.84	33.55	4.45	266	150	10.06	33.80	3.01	26.02	200	0.40
96	11.86	33.53	4.36	249	200	9.21	34.06	2.22	26.38	166	0.50
110	10.86	33.68	3.72	221	250	8.98	34.17	1.70	26.50	154	0.58
133	10.52	33.71	3.36	213	300	8.70	34.21	1.59	26.57	148	0.66
160	9.78	33.89	2.81	187	400	7.78	34.25	1.01	26.75	131	0.80
192	9.27	34.04	2.27	169	500	7.04	34.29	0.66	26.88	118	0.93
239	9.01	34.15	1.78	157							
312	8.62	34.22	1.57	146							
405	7.71	34.25	0.99	131							
529	6.89	34.30	0.58	116							

87.40 STRANGER; February 1, 1958; 0406 GCT; 33°40'N, 118°58.5'W; sounding, 485 fm; wind, calm; weather, overcast; sea, rough; wire angle, 00°.

0	15.94	33.66	5.75	321	0	15.94	33.66	5.75	24.75	321	0.00
10	15.84	33.62	5.47	321	10	15.84	33.62	5.47	24.75	321	0.03
30	15.63	33.62	5.50	317	20	15.74	33.62	5.48	24.77	319	0.06
39	15.16	33.59	5.78	309	30	15.63	33.62	5.50	24.79	317	0.10
49	14.50	33.53	5.64	300	50	14.46	33.53	5.62	24.98	299	0.16
58	13.90	33.51	5.41	290	75	13.41	33.53	5.09	25.20	278	0.23
68	13.62	33.53	5.29	282	100	11.21	33.54	4.27	25.63	237	0.30
82	12.72	33.45	5.00	271	150	10.01	33.84	3.03	26.06	196	0.40
97	11.38	33.53	4.36	241	200	9.42	34.08	2.15	26.36	168	0.50
111	10.84	33.60	3.92	227	250	8.98	34.19	1.60	26.50	154	0.58
134	10.22	33.78	3.31	204	300	8.30	34.22	1.27	26.64	140	0.66
162	9.89	33.86	2.81	192	400	7.29	34.30	0.84	26.84	122	0.79
194	9.47	34.06	2.20	170	500	6.73	34.31	0.54	26.94	113	0.91
240	9.08	34.18	1.71	156							
313	8.10	34.23	1.16	137							
406	7.23	34.30	0.81	121							
531	6.60	34.31	0.48	111							

87.45 STRANGER; February 1, 1958; 0700 GCT; 33°30'N, 119°19'W; sounding, 915 fm; wind, calm; weather, overcast; sea, moderate; wire angle, 00°.

0	14.77	33.57	5.94	302	0	14.77	33.57	5.94	24.94	302	0.00
10	14.75	33.59	5.96	300	10	14.75	33.59	5.96	24.96	300	0.03
30	14.34	33.55	5.74	295	20	14.60	33.58	5.88	24.98	299	0.06
39	12.92	33.48	5.04	273	30	14.34	33.55	5.74	25.02	295	0.09
49	12.50	33.51	4.96	263	50	12.44	33.51	4.93	25.37	262	0.14
58	11.66	33.51	4.53	248	75	10.96	33.59	4.04	25.71	229	0.21
68	11.21	33.56	4.28	237	100	10.25	33.68	3.60	25.90	211	0.26
82	10.74	33.61	3.81	224	150	9.50	33.95	2.67	26.24	179	0.36
96	10.33	33.66	3.67	214	200	8.91	34.11	2.05	26.46	158	0.45
110	10.10	33.73	3.42	205	250	8.61	34.18	1.51	26.56	149	0.52
133	9.71	33.87	2.90	188	300	8.22	34.21	1.25	26.64	141	0.60
160	9.40	34.00	2.59	174	400	7.46	34.23	0.81	26.76	129	0.74
191	9.00	34.07	2.21	162	500	6.82	34.31	0.53	26.92	114	0.87
237	8.74	34.16	1.66	151							
311	8.16	34.22	1.20	138							
404	7.42	34.23	0.80	129							
529	6.62	34.33	0.49	110							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
STRANGER; February 1, 1958; 1315 GCT; 33°10'N, 120°00.5'W; sounding, 650 fm; wind, 340°, force 3; weather, overcast; sea, high; wire angle, 00°.											87.55
0	15.62	33.58	5.78	320	0	15.62	33.58	5.78	24.76	320	0.00
10	15.64	33.58	5.80	320	10	15.64	33.58	5.80	24.76	320	0.03
30	15.63	33.58	5.72	320	20	15.64	33.58	5.77	24.76	320	0.06
54	13.12	33.40	5.37	282	30	15.63	33.58	5.72	24.76	320	0.10
64	12.40	33.40	5.11	269	50	13.78	33.44	5.45	25.05	292	0.16
73	11.62	33.39	5.00	256	75	11.80	33.42	4.78	25.43	256	0.22
83	11.59	33.51	4.51	246	100	10.89	33.63	3.60	25.76	225	0.29
96	11.05	33.61	3.69	230	150	9.67	33.88	2.73	26.15	187	0.39
110	10.53	33.67	3.55	216	200	9.02	34.10	2.01	26.43	161	0.48
128	10.06	33.79	3.15	200	250	8.51	34.17	1.69	26.58	147	0.56
146	9.75	33.86	2.80	190	300	8.08	34.21	1.33	26.66	138	0.63
169	9.42	33.98	2.45	176	400	7.42	34.25	0.89	26.79	127	0.77
191	9.12	34.09	2.12	162	500	6.72	34.31	0.58	26.94	113	0.89
237	8.62	34.16	1.77	150							
311	8.00	34.22	1.29	137							
404	7.40	34.25	0.88	126							
527	6.48	34.33	0.52	108							
STRANGER; February 1, 1958; 1605 GCT; 33°00'N, 120°21.5'W; sounding, 355 fm; wind, 140°, force 4; weather, overcast; sea, high; wire angle, 05°.											87.60
0	14.51	33.49	5.83	303	0	14.51	33.49	5.83	24.94	303	0.00
10	14.52	33.46	5.75	305	10	14.52	33.46	5.75	24.91	305	0.03
29	14.52	33.48	5.72	304	20	14.52	33.48	5.73	24.92	304	0.06
53	14.51	33.48	5.79	303	30	14.52	33.48	5.72	24.92	304	0.09
63	13.80	33.44	4.19u	293	50	14.51	33.48	5.76	24.92	304	0.15
73	12.94	33.39	5.40	280	75	12.80	33.39	5.30	25.21	277	0.22
82	12.03	33.39	5.07	263	100	10.49	33.44	4.50	25.68	232	0.29
96	10.69	33.42	4.65	237	150	9.25	33.75	3.25	26.12	190	0.40
111	10.07	33.51	4.14	221	200	8.40	34.03	2.38	26.47	157	0.48
129	9.46	33.60	3.89	205	250	8.05	34.14	1.73	26.62	143	0.56
148	9.26	33.74	3.28	191	300	7.50	34.17	1.30	26.71	134	0.63
170	8.63	33.86	2.87	173	400	6.55	34.22	0.71	26.89	117	0.76
192	8.46	34.00	2.48	160	500	5.89	34.26	0.46	27.01	106	0.88
238	8.16	34.14	1.83	145							
310	7.40	34.17	1.24	133							
401	6.55	34.22	0.71	117							
524	5.78	34.27	0.43	104							
STRANGER; February 1, 1958; 2053 GCT; 32°39.5'N, 121°02'W; sounding, 2100 fm; wind, 140°, force 4; weather, cloudy; sea, high; wire angle, 03°.											87.70
0	15.02	33.48	5.72	315	0	15.02	33.48	5.72	24.81	315	0.00
10	15.03	33.48	5.76	315	10	15.03	33.48	5.76	24.81	315	0.03
30	14.98	33.48	5.84	313	20	15.01	33.48	5.80	24.82	314	0.06
54	14.94	33.48	5.83	313	30	14.98	33.48	5.84	24.83	313	0.09
64	14.94	33.49	5.78	312	50	14.94	33.48	5.83	24.83	313	0.16
74	14.96	33.48	5.84	313	75	14.96	33.48	5.83	24.84	312	0.24
83	14.24	33.45	5.65	300	100	12.23	33.39	5.33	25.32	266	0.31
97	12.74	33.39	5.40	276	150	9.43	33.59	3.92	25.97	205	0.43
111	11.07	33.40	5.08	246	200	8.32	33.96	2.79	26.44	160	0.52
129	10.18	33.53	4.41	221	250	7.59	34.07	1.92	26.62	143	0.60
147	9.47	33.58	4.03	206	300	7.04	34.13	1.42	26.75	130	0.67
170	9.16	33.79	3.40	186	400	6.37	34.20	0.83	26.90	116	0.79
193	8.49	33.93	2.97	165	500	5.73	34.26	0.49	27.03	104	0.91
239	7.72	34.05	2.09	145							
311	6.97	34.14	1.36	128							
404	6.36	34.20	0.83	116							
529	5.58	34.29	0.39	100							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{3}^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{3}^{-5} 10 cm/g	ΔD dyn. m

87.80 STRANGER; February 2, 1958; 0135 GCT; 32°19.5'N, 121°43'W; sounding, 2250 fm; wind, 140°, force 5; weather, partly cloudy; sea, high; wire angle, 05°.

0	14.94	33.51	5.90	310	0	14.94	33.51	5.90	24.86	310	0.00
10	14.95	33.49	5.65	312	10	14.95	33.49	5.65	24.84	312	0.03
29	14.90	33.52	5.63	309	20	14.93	33.51	5.64	24.86	310	0.06
58	14.87	33.49	5.74	310	30	14.90	33.52	5.63	24.87	309	0.09
68	13.88	33.48	5.58	291	50	14.89	33.49	5.70	24.86	310	0.16
78	12.81	33.44	5.34	274	75	13.21	33.46	5.45	25.18	280	0.23
92	11.54	33.37	4.95	255	100	11.00	33.38	4.80	25.54	245	0.30
106	10.72	33.40	4.72	239	150	9.03	33.66	3.63	26.09	193	0.41
120	9.91	33.52	4.30	218	200	8.38	33.99	2.60	26.45	159	0.50
139	9.40	33.58	4.04	205	250	7.61	34.07	2.04	26.62	143	0.57
157	8.82	33.77	3.35	182	300	7.05	34.11	1.55	26.74	132	0.64
184	8.59	33.89	2.93	170	400	6.39	34.21	0.80	26.90	116	0.77
206	8.28	34.02	2.39	155	500	5.77	34.29	0.48	27.05	102	0.89
256	7.50	34.07	1.98	141							
333	6.80	34.14	1.25	126							
436	6.18	34.25	0.61	110							
570	5.32	34.33	0.39	94							

90.80 STRANGER; February 2, 1958; 1448 GCT; 31°45'N, 121°19'W; sounding, 2100 fm; wind, 200°, force 3; weather, partly cloudy; sea, very rough; wire angle, 08°.

0	15.92	33.54	5.60	329	0	15.92	33.54	5.60	24.66	329	0.00
10	15.92	33.55	5.71	328	10	15.92	33.55	5.71	24.67	328	0.03
29	15.02	33.49	5.68	314	20	15.88	33.54	5.70	24.69	327	0.06
39	15.00	33.49	5.80	313	30	15.02	33.49	5.69	24.82	314	0.10
49	15.00	33.50	5.74	312	50	15.00	33.50	5.74	24.84	312	0.16
58	14.96	33.50	5.76	311	75	14.02	33.46	5.48	25.02	295	0.24
67	14.62	33.46	5.68	308	100	10.48	33.40	4.60	25.65	235	0.30
81	13.54	33.47	5.27	285	150	8.80	33.79	3.40	26.23	180	0.41
95	10.75	33.40	4.64	240	200	8.21	33.98	2.48	26.47	157	0.49
109	10.01	33.42	4.52	227	250	7.68	34.06	1.94	26.61	144	0.67
131	9.02	33.66	3.54	194	300	7.05	34.12	1.63	26.75	130	0.64
158	8.72	33.85	3.36	174	400	6.35	34.21	0.87	26.91	115	0.77
190	8.35	33.96	2.64	161	500	5.65	34.30	0.50	27.06	101	0.88
235	7.82	34.05	2.01	147							
308	6.94	34.14	1.56	128							
398	6.37	34.20	0.89	117							
521	5.60	34.32	0.47	98							

90.90 STRANGER; February 2, 1958; 0948 GCT; 31°25'N, 121°59'W; sounding, 2150 fm; wind, 180°, force 3; weather, drizzle; sea, very rough; wire angle, 08°.

0	16.76	33.68	5.47	336	0	16.76	33.68	5.47	24.58	336	0.00
10	16.76	33.68	5.47	336	10	16.76	33.68	5.47	24.58	336	0.03
29	16.76	33.72a)	5.48	334	20	16.76	33.70	5.47	24.59	336	0.07
53	16.76	33.70	5.42	336	30	16.76	33.71	5.47	24.61	334	0.10
63	16.75	33.70	5.43	334	50	16.76	33.70	5.45	24.59	336	0.17
73	16.78	33.71	5.48	335	75	16.78	33.70	5.46	24.59	336	0.25
82	16.78	33.70	5.38	336	100	14.02	33.46	5.67	25.01	295	0.33
96	14.56	33.48	5.73	304	150	10.42	33.44	4.78	25.69	231	0.46
109	13.06	33.45	5.44	277	200	9.00	33.74	3.47	26.16	187	0.57
129	11.92	33.44	5.32	256	250	8.26	33.94	2.75	26.43	161	0.66
147	10.58	33.43	4.84	235	300	7.55	34.06	1.95	26.63	142	0.74
169	9.69	33.53	4.47	213	400	6.60	34.16	1.10	26.82	122	0.88
192	9.18	33.67	3.66	195	500	6.15	34.28	0.60	26.99	108	1.00
236	8.44	33.91	2.97	166							
308	7.41	34.07	1.81	140							
398	6.61	34.16	1.11	123							
520	6.02	34.30	0.48	106							

a) Possible evaporation; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T_3}^{-5}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T_3}^{-5}$ 10^{-5} cm/g	ΔD dyn. m
PAOLINA-T; January 29, 1958; 2351 GCT; 32°55'N, 117°20'W; sounding, 70 fm; wind, 270°, force 3; weather, cloudy; sea, moderate; wire angle, 00°.											93.27
0	16.55	33.66	5.54	334	0	16.55	33.66	5.54	24.61	334	0.00
10	16.22	33.66	5.54	327	10	16.22	33.66	5.54	24.68	327	0.03
30	15.79	33.61	5.58	320	20	16.01	33.64	5.57	24.72	323	0.06
50	14.42	33.54	5.00	298	30	15.79	33.61	5.58	24.75	320	0.10
76	12.30	33.57	4.35	255	50	14.42	33.54	5.00	24.99	298	0.16
					75	12.40	33.57	4.36	25.42	257	0.23
PAOLINA-T; January 30, 1958; 0235 GCT; 32°50'N, 117°33'W; sounding, 470 fm; wind, 290°, force 3; weather, cloudy; sea, very rough; wire angle, 05°.											93.30
0	16.28	33.66	5.45	327	0	16.28	33.66	5.45	24.68	327	0.00
10	16.28	33.64	5.43	328	10	16.28	33.64	5.43	24.67	328	0.03
30	15.87	33.68	5.54	317	20	16.10	33.66	5.50	24.72	323	0.06
40	15.63	33.68	5.37	312	30	15.87	33.68	5.54	24.79	317	0.10
51	14.80	33.59	5.19	302	50	14.90	33.60	5.19	24.94	303	0.16
61	13.82	33.58	4.66	283	75	12.26	33.44	4.98	25.36	263	0.23
70	12.52	33.45	5.02	267	100	11.35	33.55	4.15	25.61	239	0.29
85	11.86	33.44	4.79	256	150	9.84	33.75	3.40	26.03	199	0.41
99	11.36	33.55	4.18	239	200	9.70	34.08	2.00	26.30	173	0.50
113	11.10	33.58	3.90	233	250	9.22	34.19	1.66	26.47	157	0.58
136	10.09	33.66	3.75	210	300	8.81	34.25	1.43	26.59	146	0.66
165	9.66	33.95	2.62	182	400	8.05	34.26	0.97	26.70	135	0.81
198	9.70	34.07	2.02	173	500	7.03	34.28	0.62	26.84	122	0.94
246	9.22	34.19	1.70	157							
322	8.64	34.27	1.35	142							
418	7.98	34.26	0.94	133							
546	6.86	34.31	0.57	114							
PAOLINA-T; January 30, 1958; 0849 GCT; 32°31'N, 118°15'W; sounding, 800 fm; wind, 230°, force 4; weather, overcast; sea, rough; wire angle, 12°.											93.40
0	16.41	33.72		326	0	16.41	33.72		24.69	326	0.00
10	16.43	33.69		329	10	16.43	33.69		24.66	329	0.03
30	16.42	33.69		329	20	16.43	33.69		24.66	329	0.06
59	16.26	33.68		325	30	16.42	33.69		24.66	329	0.10
68	14.06	33.55		289	50	16.38	33.69		24.68	327	0.16
78	13.57	33.53		281	75	13.70	33.54		25.14	284	0.24
92	12.62	33.53		263	100	12.37	33.55		25.41	259	0.31
106	12.14	33.60		250	150	10.64	33.74		25.88	213	0.43
120	11.53	33.55		243	200	9.55	34.03		26.29	174	0.53
137	11.02	33.70		223	250	8.76	34.22		26.56	148	0.61
154	10.54	33.75		211	300	8.04	34.23		26.68	137	0.68
181	9.82	33.96		184	400	7.08	34.29		26.86	120	0.82
204	9.49	34.04		172	500	6.50	34.33		26.98	108	0.94
254	8.72	34.22		148							
332	7.60	34.23		131							
435	6.92	34.31		115							
572	5.98	34.35		100							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10 cm/g	ΔD dyn. m

93.50 PAOLINA-T; January 30, 1958; 1502 GCT; 32°13'N, 118°55'W; sounding, 730 fm; wind, 300°, force 2; weather, drizzle; sea, very rough; wire angle, 12°.

0	15.36	33.64	5.74	309	0	15.36	33.64	5.74	24.87	309	0.00
10	15.36	33.66	5.71	308	10	15.36	33.66	5.71	24.88	308	0.03
30	15.38	33.60	5.69	313	20	15.36	33.63	5.70	24.85	311	0.06
59	12.60	33.40	5.21	273	30	15.38	33.60	5.69	24.83	313	0.09
67	11.64	33.43	4.80	253	50	15.20	33.58	5.61	24.85	311	0.16
76	11.00	33.49	4.44	238	75	11.05	33.49	4.47	25.61	239	0.22
90	10.48	33.51	4.36	227	100	10.28	33.55	4.23	25.80	221	0.28
102	10.22	33.57	4.15	219	150	9.49	33.93	2.57	26.23	180	0.38
118	9.94	33.78	3.34	199	200	8.79	34.13	2.11	26.49	155	0.47
136	9.60	33.86	2.89	187	250	8.24	34.21	1.68	26.64	141	0.54
154	9.43	33.96	2.49	177	300	7.80	34.25	1.25	26.74	131	0.61
182	8.92	34.09	2.24	160	400	7.08	34.29	0.73	26.87	119	0.74
204	8.79	34.13	2.08	155	500	6.46	34.33	0.48	26.99	108	0.86
254	8.20	34.22	1.64	140							
333	7.51	34.27	1.00	126							
437	6.86	34.30	0.63	115							
572	5.98	34.37	0.38	99							

93.60 PAOLINA-T; January 30, 1958; 2115 GCT; 31°53'N, 119°40'W; sounding, 1880 fm; wind, 340°, force 5; weather, cloudy; sea, very high; wire angle, 22°.

0	16.20	33.62		329	0	16.20	33.62		24.66	329	0.00
9	16.21	33.62		329	10	16.21	33.62		24.66	329	0.03
32	16.19	33.61		329	20	16.21	33.62		24.66	329	0.06
60	14.87	33.54a)		307	30	16.19	33.61		24.66	329	0.10
69	14.14	33.48		296	50	16.00	33.59		24.69	326	0.16
92	11.76	33.39		258	75	13.60	33.45		25.09	288	0.24
111	10.86	33.50		234	100	11.38	33.42		25.50	249	0.31
124	10.22	33.55		220	150	9.06	33.73		26.13	189	0.42
141	9.34	33.65		199	200	8.75	34.01		26.41	163	0.51
162	8.86	33.82		179	250	8.74	34.21		26.56	148	0.59
191	8.70	34.00		163	300	7.95	34.24		26.71	134	0.66
216	8.84	34.09		159	400	6.94	34.30		26.90	116	0.79
270	8.32	34.22		142	500	6.20	34.36		27.04	103	0.91
352	7.38	34.27		124	600	5.58	34.40		27.16	92	1.01
458	6.52	34.33		109							
600	5.58	34.40		92							

93.70 PAOLINA-T; January 31, 1958; 0304 GCT; 31°32'N, 120°16'W; sounding, 2200 fm; wind, 300°, force 5; weather, cloudy; sea, very rough; wire angle, 08°.

0	15.72	33.59		320	0	15.72	33.59		24.76	320	0.00
10	15.74	33.60		321	10	15.74	33.60		24.75	321	0.03
30	15.71	33.58		321	20	15.72	33.59		24.75	321	0.06
60	15.42	33.57		317	30	15.71	33.58		24.75	321	0.10
71	13.16	33.45		280	50	15.58	33.57		24.77	319	0.16
79	12.30	33.40		267	75	12.70	33.42		25.25	273	0.23
95	10.77	33.45		237	100	10.65	33.46		25.66	234	0.30
109	10.52	33.48		230	150	9.39	33.81		26.15	187	0.41
123	10.14	33.54		220	200	8.72	34.03		26.43	161	0.50
142	9.46	33.71		196	250	8.01	34.11		26.60	145	0.57
161	9.32	33.86		183	300	7.69	34.24		26.75	131	0.64
189	9.07	34.02		167	400	6.81	34.31		26.93	114	0.77
211	8.28	34.04		154	500	5.96	34.35		27.07	100	0.88
263	7.99	34.18		139	600	(5.25)	34.38		(27.17)	(90)	(0.98)
343	7.34	34.29		123							
448	6.39	34.33		107							
586	5.38	34.38		91							

a) Possible evaporation; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

PAOLINA-T; January 31, 1958; 0923 GCT; 31°04'N, 120°50'W; sounding, 2100 fm; wind, 330°, force 4; weather, cloudy; sea, very rough; wire angle, 02°. 93.80

0	16.05	33.57	5.60	329	0	16.05	33.57	5.60	24.66	329	0.00
10	16.05	33.54	5.65	331	10	16.05	33.54	5.65	24.64	331	0.03
30	16.05	33.55	5.67	330	20	16.05	33.54	5.66	24.64	331	0.06
60	15.78	33.49	5.64	329	30	16.05	33.55	5.67	24.65	330	0.10
71	15.30	33.48	5.67	320	50	15.95	33.53	5.67	24.66	329	0.16
81	14.40	33.44	5.68	304	75	15.00	33.47	5.68	24.82	314	0.24
95	12.62	33.39	5.52	274	100	12.08	33.39	5.39	25.35	264	0.32
110	11.24	33.40	5.09	249	150	11.02	33.88	1.73	25.92	209	0.44
124	10.86	33.49	2.24	235	200	10.32	34.06	2.07	26.19	184	0.54
143	11.05	33.85	1.83	212	250	9.12	34.12	1.20	26.44	160	0.63
162	10.96	33.93	1.64	205	300	8.52	34.20	0.85	26.59	146	0.71
191	10.54	34.04	2.14	189	400	7.50	34.26	0.45	26.79	127	0.85
214	9.84	34.09	1.67	174	500	6.40	34.27	0.34	26.95	112	0.97
267	8.83	34.14	1.05	155	600	(5.82)	(34.32)	(0.36)	(27.06)	(101)	(1.09)
348	8.14	34.26a)	0.65	136							
454	6.78	34.25	0.34	118							
591	5.88	34.31	0.36	102							

PAOLINA-T; February 1, 1958; 2330 GCT; 32°15'N, 117°08'W; sounding, 28 fm; wind, 120°, force 1; weather, partly cloudy; sea, rough; wire angle, 00°. 97.30

0	16.74	33.66	338	0	16.74	33.66		24.56	338	0.00
20	16.22	33.68	325	10	16.45	33.68		24.68	327	0.03
40	15.38	33.65	308	20	16.22	33.68		24.70	325	0.06
				30	16.18	33.68		24.71	324	0.10

PAOLINA-T; February 1, 1958; 2150 GCT; 32°11.5'N, 117°17'W; sounding, 710 fm; wind, 230°, force 2; weather, partly cloudy; sea, rough; wire angle, 08°. 97.32

0	17.08	33.71	341	0	17.08	33.71		24.53	341	0.00
10	16.42	33.68	330	10	16.42	33.68		24.65	330	0.03
30	16.26	33.68	325	20	16.32	33.68		24.68	327	0.07
55	14.23	33.55	293	30	16.26	33.68		24.70	325	0.10
65	13.10	33.47	275	50	15.32	33.65		24.88	308	0.16
74	12.56	33.48	266	75	12.46	33.48		25.34	264	0.23
84	11.62	33.46	251	100	11.05	33.56		25.66	234	0.30
99	11.09	33.55	235	150	9.85	34.01		26.22	180	0.40
133p	10.16	33.93	191	200	9.73	34.08		26.31	173	0.49
197p	9.74	34.16	175	250	9.39	34.22		26.47	157	0.57
278p	9.18	34.31	147	300	9.00	34.33		26.61	144	0.65
393p	8.26	34.34	131							

PAOLINA-T; February 1, 1958; 1813 GCT; 32°00'N, 117°40'W; sounding, 850 fm; wind, calm; weather, cloudy; sea, very rough; wire angle, 00°. 97.40

0	16.63	33.68	5.25	334	0	16.63	33.68	5.25	24.61	334	0.00
10	16.45	33.68	5.50	330	10	16.45	33.68	5.50	24.65	330	0.03
30	16.43	33.64	5.39	333	20	16.43	33.67	5.44	24.64	331	0.07
41	16.40	33.64	5.39	332	30	16.43	33.64	5.39	24.62	333	0.10
51	16.38	33.68	4.97	328	50	16.38	33.68	4.98	24.66	329	0.16
60	16.37	33.68	5.02	328	75	14.59	33.47	4.50	24.90	306	0.24
69	15.54	33.53	4.56	321	100	11.93	33.44	4.12	25.42	257	0.32
84	13.32	33.43	4.46	284	150	10.04	33.52	2.86	25.81	220	0.44
99	11.96	33.44	4.13	258	200	9.40	33.96	2.10	26.26	177	0.54
113	11.36	33.42	3.42	249	250	8.36	34.03	1.49	26.48	156	0.62
137	10.46	33.45	3.14	231	300	8.17	34.17	1.27	26.62	143	0.70
165	9.69	33.64	2.46	206	400	7.27	34.28	0.66	26.84	122	0.84
199	9.41	33.95	2.22	178	500	6.50	34.34	0.50	26.99	108	0.96
247	8.40	34.02	1.53	157							
324	8.11	34.20	1.22	140							
421	7.07	34.30	0.59	118							
550	6.24	34.36	0.48	103							

a) Possible evaporation; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T_3}^{-5}$ 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T_3}^{-5}$ 10 cm/g	ΔD dyn. m

97.50 PAOLINA-T; February 1, 1958; 1147, 1212 GCT; 31°37'N, 118°27'W; sounding, 770 fm; wind, 090°, force 2; weather, cloudy; sea, moderate; wire angle, 03°, 03°.

0	16.36	33.62a)		332	0	16.36	33.62		24.63	332	0.00
10	16.38	33.58		336	10	16.38	33.58		24.59	336	0.03
30	16.44	33.70		328	20	16.41	33.61		24.61	334	0.07
56	15.78	33.68		315	30	16.44	33.70		24.67	328	0.10
65	14.74	33.62		298	50	16.30	33.70		24.70	325	0.16
75	14.24	33.62		287	75	14.24	33.62		25.10	287	0.24
85	13.72	33.60		280	100	12.70	33.71		25.47	252	0.31
99	12.72	33.71		253	150	10.06	33.68		25.93	208	0.43
114	11.87	33.71		237	200	9.01	33.98		26.33	170	0.52
133	10.66	33.64		221	250	8.27	34.11		26.56	149	0.60
157	10.06	33.69		207	300	7.85	34.17		26.67	138	0.68
176	9.51	33.80		191	400	6.94	34.27		26.87	119	0.81
200	9.01	33.98		170	500	6.30	34.28		26.97	110	0.93
248	8.30	34.11		149							
322	7.62	34.20		133							
420	6.76	34.27		116							
551	6.02	34.28		107							

97.60 PAOLINA-T; February 1, 1958; 0503 GCT; 31°08'N, 119°07'W; sounding, 1800 fm; wind, 320°, force 2; weather, cloudy; sea, high; wire angle, 00°.

0	16.31	33.68		327	0	16.31	33.68		24.68	327	0.00
10	16.31	33.58		334	10	16.31	33.58		24.61	334	0.03
30	15.67	33.57		321	20	16.02	33.57		24.67	328	0.07
55	15.36	33.55		316	30	15.67	33.57		24.75	321	0.10
64	14.82	33.50		309	50	15.42	33.55		24.79	317	0.16
74	13.32	33.46		281	75	13.28	33.46		25.17	281	0.24
83	12.35	33.43		266	100	10.98	33.40		25.56	244	0.30
98	11.02	33.40		245	150	9.22	33.69		26.08	194	0.41
113	10.48	33.51		227	200	8.29	33.95		26.43	161	0.50
132	9.60	33.58		208	250	7.75	34.03		26.57	147	0.58
150	9.22	33.69		194	300	7.29	34.10		26.70	136	0.66
174	8.24	33.92		170	400	6.46	34.21		26.89	117	0.79
198	8.32	33.95		162	500	5.82	34.30		27.04	103	0.90
245	7.80	34.02		149							
321	7.10	34.13		131							
417	6.30	34.23		113							
544	5.62	34.33		98							

97.70 PAOLINA-T; January 31, 1958; 2208 GCT; 30°39'N, 119°48'W; sounding, 2180 fm; wind, 360°, force 3; weather, cloudy; sea, high; wire angle, 04°.

0	15.60	33.58	5.51	319	0	15.60	33.58	5.51	24.77	319	0.00
10	15.38	33.57	5.70	315	10	15.38	33.57	5.70	24.81	315	0.03
30	15.42	33.55	5.72	317	20	15.41	33.56	5.71	24.79	317	0.06
55	15.00	33.55	5.45	309	30	15.42	33.55	5.72	24.79	317	0.09
65	12.18	33.40	5.07	265	50	15.39	33.55	5.67	24.79	317	0.16
74	11.63	33.40	4.90	255	75	11.63	33.40	4.87	25.44	255	0.23
84	11.16	33.46	4.50	242	100	10.30	33.50	4.25	25.75	225	0.29
98	10.40	33.49	4.30	227	150	9.20	33.80	3.04	26.17	185	0.40
113	9.85	33.55	4.00	214	200	8.40	34.02	2.22	26.46	158	0.48
133	9.52	33.68	3.43	200	250	7.59	34.05	1.82	26.62	144	0.56
153	9.18	33.82	2.98	184	300	7.12	34.12	1.33	26.72	133	0.63
177	8.87	33.95	2.48	169	400	6.30	34.19	0.86	26.89	117	0.76
201	8.38	34.02	2.17	157	500	5.61	34.27	0.53	27.05	102	0.87
249	7.60	34.05	1.83	144							
326	6.98	34.14	1.16	129							
424	6.10	34.20	0.77	114							
552	5.36	34.32	0.41	95							

a) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

97.80

PAOLINA-T; January 31, 1958; 1543 GCT; 30°17'N, 120°25'W; sounding, 2070 fm; wind, 360°, force 4; weather, cloudy; sea, high; wire angle, 10°.

0	15.44	33.49	5.52	322	0	15.44	33.49	5.52	24.74	322	0.00
10	15.44	33.50	5.58	321	10	15.44	33.50	5.58	24.75	321	0.03
30	15.47	33.51	5.54	321	20	15.46	33.50	5.56	24.75	321	0.06
54	14.94	33.48	5.84	313	30	15.47	33.51	5.54	24.75	321	0.10
65	14.24	33.43	5.67	301	50	15.30	33.50	5.65	24.78	318	0.16
74	13.55	33.51	5.85	284	75	13.45	33.49	5.85	25.16	282	0.24
82	12.48	33.40	5.47	270	100	10.93	33.46	4.86	25.61	238	0.30
97	11.16	33.46	4.94	243	150	9.34	33.71	3.53	26.08	194	0.41
111	10.34	33.48	4.41	228	200	8.42	33.93	2.64	26.40	164	0.50
130	9.76	33.57	4.13	211	250	8.04	34.10	1.96	26.59	146	0.58
148	9.34	33.68	3.55	197	300	7.45	34.16	1.47	26.71	134	0.66
171	9.14	33.86	2.93	181	400	6.70	34.30	0.69	26.93	114	0.78
194	8.50	33.91	2.73	167	500	5.99	34.35	0.47	27.06	101	0.90
239	8.14	34.09	2.09	148							
314	7.33	34.17	1.32	132							
408	6.68	34.31	0.67	112							
534	5.70	34.36	0.41	96							

100.30

PAOLINA-T; January 14, 1958; 0540 GCT; 31°41'N, 116°46.5'W; sounding, 210 fm; wind, 320°, force 4; weather, missing; sea, rough; wire angle, 03°.

0	16.38	33.68		328	0	16.38	33.68		24.67	328	0.00
10	16.38	33.71		326	10	16.38	33.71		24.69	326	0.03
30	15.88	33.68		318	20	16.35	33.71		24.69	326	0.06
51	14.43	33.59		294	30	15.88	33.68		24.78	318	0.10
76	13.20	33.59		270	50	14.45	33.59		25.02	294	0.16
101	11.93	33.68		240	75	13.24	33.59		25.28	270	0.23
125	10.71	33.85		206	100	11.97	33.68		25.59	240	0.29
164	10.03	34.04		182	150	10.22	33.98		26.14	188	0.40
203	9.61	34.29		156	200	9.66	34.28		26.47	157	0.49
252	9.14	34.25		151	250	9.18	34.25		26.53	152	0.57
299	8.61	34.29		141	300	(8.61)	(34.29)		(26.65)	(140)	(0.64)

100.32

PAOLINA-T; January 14, 1958; 0755 GCT; 31°37'N, 116°54.5'W; sounding, missing; wind, 320°, force 4; weather, missing; sea, rough; wire angle, 20°.

1	16.10	33.69	6.09a)	321	0	(16.10)	(33.69)	(6.10)	(24.75)	(321)	(0.00)
10	16.14	33.68	5.65	323	10	16.14	33.68	5.65	24.72	323	0.03
29	16.07	33.66	5.69	323	20	16.11	33.67	5.68	24.73	323	0.06
47	14.29	33.54	5.06	294	30	16.06	33.66	5.68	24.73	323	0.10
68	12.78	33.58	4.78	262	50	14.04	33.54	5.00	25.06	290	0.16
88	11.82	33.62	4.12	243	75	12.42	33.59	4.60	25.43	255	0.23
106	11.29	33.71	3.74	226	100	11.45	33.67	3.89	25.68	232	0.29
130	10.80	33.81	-	211	150	10.52	33.91	2.71	26.03	199	0.40
150	10.52	33.91	2.71	199							

a) All oxygen values doubtful.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

100.40 PAOLINA-T; January 14, 1958; 1355 GCT; 31°21'N, 117°27'W; sounding, 1320 fm; wind, 320°, force 3; weather, clear; sea, rough; wire angle, 00°.

0	16.65	33.75	5.69a)	329	0	16.65	33.75	5.69	26.66	329	0.00
10	16.68	33.71	5.45	333	10	16.68	33.71	5.45	26.62	333	0.03
30	16.68	33.73b)	5.38	332	20	16.68	33.72	5.41	26.63	332	0.07
45	16.67	33.73	5.55	331	30	16.68	33.73	5.38	26.63	332	0.10
56	16.67	33.73	5.53	331	50	16.67	33.73	5.54	26.64	331	0.17
65	15.46	33.64	5.33	311	75	13.83	33.54	5.30	25.12	286	0.24
74	13.89	33.55	5.30	286	100	11.65	33.46	5.38	25.48	251	0.31
95	11.98	33.46	5.38	256	150	10.00	33.92	3.93	26.13	190	0.43
109	11.28	33.48	5.36	243	200	9.61	34.13	1.94	26.36	168	0.52
123	10.83	33.50	4.95	234	250	8.63	34.17	1.96	26.55	150	0.60
147	10.04	33.90	4.00	192	300	8.10	34.27	1.65	26.70	135	0.67
176	10.20	34.08	1.74	181	400	7.28	34.36	0.63	26.90	117	0.80
215	9.20	34.14	2.09	161	500	6.36	34.37	0.41	27.03	104	0.92
268	8.39	34.20	1.89	144	600	(5.81)	(34.40)	(0.29)	(27.13)	(94)	(1.02)
350	7.78	34.36	0.81	123							
453	6.74	34.35	0.49	110							
594	5.84	34.40	0.30	95							

100.50 PAOLINA-T; January 14, 1958; 2025 GCT; 31°01'N, 118°07.5'W; sounding, 935 fm; wind, 340°, force 3; weather, clear; sea, very rough; wire angle, 08°.

0	16.59	33.64	-	336	0	16.59	33.64		24.59	336	0.00
11	16.48	33.67	5.63	332	10	16.49	33.66		24.63	332	0.03
30	16.43	33.64	5.77	332	20	16.46	33.65	5.70	24.63	332	0.07
55	16.41	33.66	5.68	331	30	16.43	33.64	5.77	24.63	332	0.10
66	14.80	33.51b)	5.91	307	50	16.42	33.66	5.73	24.64	331	0.17
75	13.45	33.42	5.77	287	75	13.45	33.42	5.77	25.10	287	0.24
85	13.01	33.44	5.80	278	100	11.89	33.44	5.44	25.42	257	0.31
99	11.90	33.44	5.45	257	150	9.95	33.69	4.47	25.96	206	0.43
114	11.36	33.44	5.34	247	200	9.07	33.97	2.86	26.32	171	0.53
132	10.72	33.46	5.10	235	250	8.29	34.12	2.34	26.56	149	0.61
151	9.90	-	4.44		300	7.85	34.21	1.55	26.70	136	0.68
175	9.59	33.83	3.27	189	400	7.00	34.28	0.84	26.88	118	0.82
197	9.14	33.96	2.87	173	500	6.24	34.33	0.61	27.01	106	0.93
244	8.39	34.10	2.42	151							
321	7.68	34.24	1.30	131							
417	6.89	34.29	0.79	117							
545	5.98	34.35	0.53	101							

100.60 PAOLINA-T; January 15, 1958; 0350 GCT; 30°41'N, 118°47'W; sounding, 1640 fm; wind, 320°, force 3; weather, clear; sea, very rough; wire angle, 02°.

0	16.22	33.52	5.79	337	0	16.22	33.52	5.79	24.58	337	0.00
11	16.22	33.52b)	5.56	337	10	16.22	33.52	5.58	24.58	337	0.03
30	16.19	33.50	5.69	337	20	16.21	33.51	5.60	24.58	337	0.07
55	16.16	33.53	5.62	334	30	16.19	33.50	5.69	24.58	337	0.10
65	16.14	33.53	5.40	334	50	16.16	33.52	5.64	24.60	335	0.17
76	15.83	33.69u	5.74		75	15.86	33.53	5.70	24.67	328	0.25
86	15.34	33.53	5.42	317	100	13.54	33.42	5.74	25.09	288	0.33
101	13.41	33.42	5.76	286	150	9.44	33.61	4.25	25.98	204	0.45
115	12.28	33.48	4.70	265	200	8.72	33.88	3.29	26.31	173	0.55
134	10.10	33.49	4.81	223	250	8.05	34.04	2.43	26.54	151	0.63
154	9.28	33.66	4.08	197	300	7.45	34.09	1.83	26.66	139	0.71
176	8.91	33.82	3.68	180	400	6.60	34.23	0.92	26.89	117	0.84
200	8.72	33.88	3.29	173	500	5.99	34.32	0.49	27.04	103	0.96
249	8.06	34.04	2.43	151							
325	7.20	34.11	1.57	134							
421	6.44	34.26	0.74	113							
550	5.74	34.34	0.38	99							

a) Oxygen values somewhat unreliable owing to titration difficulties.
b) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

PAOLINA-T; January 15, 1958; 1130 GCT; 30°20'N, 119°26'W; sounding, 2000 fm; wind, 320°, force 3; weather, clear; sea, very rough; wire angle, 13°. 100.70

0	16.36	33.52	6.01	339	0	16.36	33.52	6.01	24.55	339	0.00
11	16.36	33.55	5.47	338	10	16.36	33.55	5.50	24.57	338	0.03
30	16.36	33.57	5.61	336	20	16.36	33.56	5.52	24.58	337	0.07
54	16.36	-	5.57		30	16.36	33.57	5.61	24.59	336	0.10
63	16.28	33.55	5.63	335	50	16.36	33.57	5.57	24.59	336	0.17
74	15.06	33.49	5.32	314	75	15.04	33.49	5.36	24.82	314	0.25
84	14.34	33.46	5.43	302	100	12.70	33.42	5.75	25.26	272	0.32
98	12.85	33.42	5.75	275	150	9.70	33.66	3.88	25.98	204	0.44
112	11.48	33.43	5.32	250	200	8.41	33.94	3.14	26.40	164	0.54
131	11.03	33.72	3.57	221	250	7.62	34.04	2.75	26.60	145	0.62
150	9.70	33.66	3.88	204	300	7.22	34.11	1.89	26.71	134	0.69
172	9.03	33.81	3.38	183	400	6.40	34.22	0.91	26.91	115	0.82
195	8.50	33.93	3.18	165	500	5.80	34.32	0.50	27.07	100	0.93
240	7.75	34.02	2.80	148							
314	7.04	34.13	1.63	131							
407	6.36	34.23	0.80	114							
532	5.66	34.34	0.43	97							

PAOLINA-T; January 15, 1958; 1845 GCT; 29°58.5'N, 120°05.5'W; sounding, 1940 fm; wind, 320°, force 4; weather, partly cloudy; sea, very rough; wire angle, 10°. 100.80

0	16.31	33.51	5.67a)	339	0	16.31	33.51	5.67	24.56	339	0.00
10	16.31	33.51	5.62	339	10	16.31	33.51	5.62	24.56	339	0.03
31	16.30	33.53	5.74	338	20	16.31	33.52	5.67	24.56	339	0.07
56	16.20	33.53	5.42	335	30	16.31	33.53	5.73	24.57	338	0.10
65	16.08	33.51	5.37	334	50	16.25	33.53	5.58	24.58	336	0.17
74	15.86	33.53	5.86	328	75	15.86	33.53	5.86	24.67	328	0.25
84	15.68	33.54	6.05	324	100	13.75	33.49	5.90	25.10	287	0.33
98	13.84	33.49	5.91	290	150	10.53	33.57	5.04	25.76	225	0.46
113	13.02	33.57	5.54	268	200	8.84	33.82	3.75	26.24	179	0.56
132	11.60	33.51	5.45	246	250	8.07	33.98	2.86	26.48	156	0.65
151	10.44	33.57	5.00	222	300	7.37	34.05	2.25	26.64	141	0.72
174	9.59	33.62	4.39	205	400	6.39	34.21	0.99	26.91	116	0.86
198	8.88	33.82	3.80	179	500	5.76	34.29	0.53	27.05	102	0.97
246	8.11	33.98b)	2.88	156							
322	7.05	34.08	2.04	134							
418	6.28	34.22	0.77	114							
544	5.51	34.32	0.43	97							

PAOLINA-T; January 16, 1958; 0122 GCT; 29°39'N, 120°43'W; sounding, 2130 fm; wind, 350°, force 4; weather, partly cloudy; sea, very rough; wire angle, 15°. 100.90

0	17.65	33.87	5.30	343	0	17.65	33.87	5.30	24.51	343	0.00
10	17.66	33.86	5.53	344	10	17.66	33.86	5.53	24.50	344	0.03
31	17.65	33.86	5.50	344	20	17.65	33.86	5.52	24.50	344	0.07
54	17.66	33.86	5.51	344	30	17.65	33.86	5.50	24.50	344	0.10
63	17.66	33.86	5.51	344	50	17.65	33.86	5.51	24.50	344	0.17
72	17.66	33.87b)	5.51	344	75	17.66	33.86	5.50	24.50	344	0.26
80	17.66	33.86	5.49	344	100	17.54	33.87	5.48	24.53	341	0.35
95	17.65	33.87	5.48	343	150	13.26	33.70	5.31	25.36	263	0.50
109	16.01	33.75	5.84	316	200	10.21	33.70	4.52	25.92	209	0.62
126	14.90	33.71	5.64	295	250	8.59	33.93	3.15	26.37	167	0.71
145	13.65	33.71	5.38	270	300	7.83	34.11	2.47	26.62	143	0.80
167	11.84	33.64	5.12	241	400	6.92	34.20	1.17	26.83	123	0.93
190	10.65	33.66	4.77	219	500	5.97	34.28	0.53	27.00	106	1.05
234	8.89	33.86	3.40	176							
307	7.72	34.13	2.04	140							
400	6.92	34.20	1.17	123							
526	5.76	34.29	0.45	102							

a) All oxygen values doubtful.
b) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

103.30 PAOLINA-T; January 17, 1958; 1625 GCT; 31°05'N, 116°25'W; sounding, 38 fm; wind, 090°, force 1; weather, partly cloudy; sea, moderate; wire angle, 00°.

0	16.41	33.58	5.60	337	0	16.41	33.58	5.60	24.58	337	0.00
10	16.40	33.68	5.66	329	10	16.40	33.68	5.66	24.66	329	0.03
30	16.41	33.66	5.71	331	20	16.41	33.67	5.68	24.65	330	0.07
50	15.69	33.60	5.71	319	30	16.41	33.66	5.71	24.64	331	0.10
					50	15.69	33.60	5.71	24.77	319	0.16

103.35 PAOLINA-T; January 17, 1958; 1357 GCT; 31°00.5'N, 116°39.5'W; sounding, 830 fm; wind, 040°, force 1; weather, missing; sea, rough; wire angle, 00°.

0	16.56	33.64	5.55	335	0	16.56	33.64	5.55	24.60	335	0.00
10	16.56	33.64	5.60	335	10	16.56	33.64	5.60	24.60	335	0.03
30	16.40	33.65	5.65	331	20	16.49	33.65	5.64	24.62	333	0.07
55	15.84	33.58	5.63	324	30	16.40	33.65	5.65	24.64	331	0.10
65	13.09	33.42	5.55	280	50	16.18	33.63	5.65	24.67	328	0.17
74	12.42	33.40	5.35	270	75	12.39	33.40	5.31	25.29	269	0.24
84	11.65	33.47	4.89	251	100	11.08	33.48	4.70	25.60	240	0.31
98	11.12	33.48	4.71	240	150	10.60	33.93	2.79	26.03	198	0.42
112	10.60	33.52	4.53	229	200	9.70	34.17	1.67	26.38	166	0.51
131	10.59	33.78	3.75	209	250	9.26	34.30	1.22	26.55	150	0.59
150	10.60	33.93	2.79	198	300	8.87	34.34	1.01	26.64	141	0.66
174	9.86	34.05	2.33	178	400	7.76	34.34	0.69	26.82	124	0.80
197	9.71	34.17	1.77	166	500	6.69	34.35	0.48	26.97	110	0.92
246	9.32	34.30	1.27	150							
322	8.70	34.35	0.93	138							
420	7.50	34.34	0.66	121							
549	6.34	34.36	0.41	104							

103.40 PAOLINA-T; January 17, 1958; 1001 GCT; 30°48'N, 117°01.5'W; sounding, 1030 fm; wind, 020°, force 1; weather, missing; sea, rough; wire angle, 00°.

0	16.47	33.62	5.53	335	0	16.47	33.62	5.53	24.60	335	0.00
10	16.46	33.64	5.62	334	10	16.46	33.64	5.62	24.61	334	0.03
30	16.37	33.61	5.64	333	20	16.40	33.62	5.63	24.62	333	0.07
55	14.87	33.51a)	5.80	309	30	16.37	33.61	5.64	24.62	333	0.10
65	12.72	33.38	5.59	276	50	16.16	33.59	5.67	24.66	329	0.17
75	12.22	-	4.99		75	12.22	33.41	4.99	25.34	265	0.24
85	11.54	33.51b)	4.64	245	100	11.02	33.60	4.00	25.70	230	0.30
100	11.02	33.60	4.00	230	150	9.74	33.84	3.20	26.12	191	0.41
114	10.74	33.65	3.67	222	200	8.65	34.02	2.57	26.43	161	0.50
134	10.21	33.65	3.67	213	250	7.95	34.12	2.21	26.62	144	0.58
152	9.70	33.86	3.18	189	300	7.66	34.28	1.63	26.78	128	0.65
177	9.36	34.04	2.54	170	400	6.79	34.24	0.91	26.87	119	0.78
200	8.65	34.02	2.57	161	500	6.03	34.29	0.53	27.01	106	0.90
248	7.98	34.11	2.23	145							
324	7.59	34.31	1.38	124							
420	6.54	34.22	0.80	117							
549	5.88	34.34	0.47	100							

a) Cracked bottle; value falls on property curve.
b) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	$\delta T_{3,-5}$	Z	T	S	O_2	σ_t	$\delta T_{3,-5}$	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

PAOLINA-T; January 17, 1958; 0325 GCT; 30°24'N, 117°42.5'W; sounding, 1140 fm; wind, 320°, force 2; weather, clear; sea, rough; wire angle, 06°. 103.50

0	16.46	-	5.71		0	16.46	(33.62)	5.71	(24.60)	(335)	(0.00)
10	16.42	33.62	5.63	334	10	16.42	33.62	5.63	24.61	334	0.03
30	16.39	33.60	5.71	334	20	16.40	33.61	5.69	24.61	334	0.07
55	15.98	33.55	5.62	329	30	16.39	33.60	5.71	24.61	334	0.10
66	14.78	33.44	5.89	312	50	16.18	33.57	5.65	24.63	332	0.17
75	13.56	33.43	5.88	288	75	13.56	33.43	5.88	25.09	288	0.24
85	12.16	33.40	5.50	265	100	11.10	33.48	5.26	25.59	240	0.31
99	11.14	33.48	5.28	241	150	9.52	33.79	3.47	26.11	191	0.42
113	10.49	33.44	5.04	233	200	8.66	33.99	2.71	26.40	164	0.51
131	9.78	33.60	4.14	210	250	7.91	34.10	2.12	26.60	144	0.59
150	9.52	33.79	3.47	191	300	7.90	34.13	1.74	26.64	141	0.66
174	9.31	33.87	3.03	182	400	7.23	34.29	0.86	26.85	121	0.80
197	8.73	33.98	2.76	165	500	6.31	34.37	0.49	27.04	103	0.92
244	7.99	34.07	2.32	148							
320	7.88	34.14	1.69	141							
415	7.06	34.32	0.73	117							
542	5.99	34.38	0.40	98							

PAOLINA-T; January 16, 1958; 2118 GCT; 30°07.5'N, 118°21'W; sounding, 1890 fm; wind, 320°, force 3; weather, cloudy; sea, very rough; wire angle, 12°. 103.60

0	16.77	33.64	5.73	340	0	16.77	34.64	5.73	24.55	340	0.00
10	16.64	33.61a)	5.68	340	10	16.64	33.61	5.68	24.55	340	0.03
30	16.63	33.64	5.89	337	20	16.63	33.63	5.83	24.57	338	0.07
55	16.58	33.65	5.69	335	30	16.63	33.64	5.89	24.58	337	0.10
64	16.45	33.62	5.67	334	50	16.59	33.65	5.74	24.60	335	0.17
73	15.12	33.51	5.90	314	75	14.81	33.49	5.90	24.87	309	0.25
83	14.00	33.47	5.90	294	100	12.33	33.43	5.62	25.33	265	0.32
97	12.54	33.43	5.63	269	150	9.98	33.57	4.73	25.86	215	0.44
111	11.73	33.44	5.57	254	200	9.04	34.02	2.83	26.36	167	0.54
131	10.52	33.44	5.06	233	250	8.76	34.21	1.78	26.56	148	0.62
149	10.01	33.54	4.77	218	300	7.83	34.19	1.67	26.69	136	0.70
172	9.39	-	3.50		400	6.85	34.22	0.95	26.85	121	0.83
195	9.02	33.93	2.99	174	500	6.22		0.68			
243	8.88	34.21	1.87	151							
318	7.44	34.19	1.63	131							
413	6.80	34.23	0.90	120							
538	5.95	-	0.61								

PAOLINA-T; January 16, 1958; 1446 GCT; 29°46.5'N, 119°04.5'W; sounding, 1830 fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 03°. 103.70

0	16.73	33.73	5.43	332	0	16.73	33.73	5.43	24.63	332	0.00
10	16.75	33.66	5.59	338	10	16.75	33.66	5.59	24.57	338	0.03
30	16.76	33.66	5.65	338	20	16.76	33.66	5.62	24.57	338	0.07
56	16.64	33.61	5.55	340	30	16.76	33.66	5.65	24.57	338	0.10
66	16.62	33.62	5.24	338	50	16.65	33.62	5.58	24.55	340	0.17
76	16.18	33.57	5.57	332	75	16.22	33.57	5.57	24.62	333	0.25
86	15.34	33.58	5.63	313	100	14.50	33.51	5.80	24.96	301	0.33
100	14.50	33.51	5.80	301	150	10.34	33.43	5.24	25.69	231	0.47
114	12.88	33.43	5.62	276	200	8.83	33.86	3.24	26.28	175	0.57
133	11.16	33.41	5.25	246	250	8.13	34.07	2.49	26.55	150	0.65
152	10.25	33.44	5.24	229	300	7.47	34.12	2.04	26.68	137	0.73
176	9.31	33.68a)	3.96	196	400	6.61	34.19	1.02	26.86	120	0.86
199	8.83	33.86	3.27	176	500	5.99	34.26	0.61	26.99	108	0.98
248	8.13	34.06	2.50	150							
324	7.20	34.14	1.81	132							
420	6.46	34.20	0.92	118							
548	5.68	34.30	0.49	101							

a) Possible evaporation; value falls on property curve.

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5801

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

107.32 PAOLINA-T; January 17, 1958; 2238 GCT; 30°23.5'N, 116°10.5'W; sounding, 320 fm; wind, 040°, force 2; weather, cloudy; sea, rough; wire angle, 07°.

0	16.77	33.69	5.63	336	0	16.77	33.69	5.63	24.59	336	0.00
10	16.74	33.69	5.57	336	10	16.74	33.69	5.57	24.59	336	0.03
30	16.66	33.68	5.61	334	20	16.70	33.69	5.59	24.59	336	0.07
50	16.08	33.67	5.68	322	30	16.66	33.68	5.61	24.61	334	0.10
74	14.58	33.70	4.29	289	50	16.08	33.67	5.68	24.74	322	0.17
98	12.80	33.71	4.02	254	75	14.51	33.70	4.25	25.09	288	0.24
122	12.12	33.73	3.74	239	100	12.73	33.71	4.02	25.47	252	0.31
161	10.44	33.95	2.65	195	150	10.90	33.88	2.98	25.94	207	0.43
198	9.86	34.13	2.07	172	200	9.86	34.14	1.99	26.31	171	0.53
245	9.44	34.31	1.31	152	250	9.42	34.31	1.30	26.54	151	0.61
293	9.15	34.36	1.05	143	300	9.11	34.36	1.02	26.62	143	0.68
393	8.30	34.42	0.71	126	400	(8.21)	(34.42)	(0.69)	(26.81)	(125)	(0.82)

107.35 PAOLINA-T; January 18, 1958; 0135 GCT; 30°20'N, 116°23'W; sounding, 950 fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 09°.

0	17.18	33.79a)	5.59	338	0	17.18	33.79	5.59	24.57	338	0.00
10	17.18	33.76	5.58	340	10	17.18	33.76	5.58	24.55	340	0.03
30	17.19	33.75	5.62	341	20	17.18	33.75	5.60	24.54	341	0.07
55	17.14	33.77	5.60	338	30	17.19	33.75	5.62	24.54	341	0.10
65	16.65	33.65	5.67	336	50	17.18	33.76	5.61	24.56	339	0.17
75	14.93	33.48	5.92	313	75	14.93	33.48	5.92	24.83	313	0.25
83	13.95	33.78b)	5.47		100	12.23	33.51	5.28	25.39	259	0.32
98	12.38	33.51	5.30	260	150	9.78	33.73	3.92	26.02	200	0.44
113	11.12	33.45	5.17	243	200	9.61	34.06	2.44	26.30	173	0.53
131	10.11	33.62	4.31	213	250	8.56	34.14	2.08	26.55	150	0.62
150	9.78	33.73	3.92	200	300	8.56	34.28	1.39	26.65	140	0.69
173	9.28	33.86	3.28	185	400	7.65	34.36	0.72	26.84	122	0.83
197	9.64	34.05	2.45	174	500	6.73	34.35	0.60	26.97	110	0.95
244	8.56	34.13	2.16	151							
321	8.57	34.34	1.10	136							
417	7.45	34.36	0.68	119							
544	6.39	34.34	0.57	106							

107.40 PAOLINA-T; January 18, 1958; 0555 GCT; 30°10'N, 116°43'W; sounding, 1550 fm; wind, 040°, force 3; weather, missing; sea, rough; wire angle, 07°.

0	16.52	33.60	5.98	337	0	16.52	33.60	5.98	24.58	337	0.00
11	16.50	33.58	5.72	338	10	16.50	33.58	5.74	24.57	338	0.03
31	16.46	33.58	5.64	337	20	16.48	33.58	5.67	24.57	338	0.07
56	16.38	33.58	5.65	334	30	16.46	33.58	5.66	24.58	337	0.10
66	15.84	33.58	5.65	324	50	16.43	33.58	5.64	24.58	337	0.17
75	14.70	33.49	5.56	307	75	14.70	33.49	5.56	24.89	307	0.25
84	13.52	33.44	5.74	287	100	12.39	33.42	5.56	25.31	267	0.32
98	12.50	33.42	5.56	270	150	9.87	33.52	4.76	25.84	217	0.44
112	11.60	33.45	5.50	251	200	8.84	33.87	3.14	26.28	175	0.54
130	10.66	34.44	5.26	235	250	8.45	34.10	2.21	26.52	153	0.63
149	9.90	33.51	4.81	217	300	7.82	34.15	1.77	26.65	140	0.70
173	9.42	33.71	3.89	196	400	6.76	34.22	1.06	26.86	120	0.84
195	8.92	33.84	3.29	179	500	6.00	34.27	0.74	27.00	107	0.96
242	8.56	34.09	2.33	154							
319	7.52	34.16	1.62	135							
416	6.66	34.23	0.98	118							
543	5.74	34.29	0.65	102							

a) Loose bottle cap; value falls on property curve.
b) Possible evaporation; value does not fall on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

PAOLINA-T; January 18, 1958; 1235 GCT; 29°50'N, 117°23.5'W; sounding, 1470 fm; wind, 270°, force 1; weather, clear; sea, very rough; wire angle, 06°. 107.50

0	17.02	33.69	5.58	342	0	17.02	33.69	5.58	24.52	342	0.00
10	17.04	33.70	5.57	342	10	17.04	33.70	5.57	24.52	342	0.03
31	17.16	33.73	5.45	342	20	17.10	33.71	5.57	24.52	342	0.07
55	17.01	33.72	5.57	340	30	17.16	33.73	5.45	24.52	342	0.10
65	17.01	33.73	5.59	339	50	17.04	33.72	5.55	24.54	340	0.17
75	15.89	33.72a)	5.45	315	75	15.89	33.72	5.45	24.81	315	0.25
84	15.04	33.63	5.25	304	100	13.32	33.60	4.94	25.27	271	0.33
99	13.40	33.60	4.96	273	150	10.74	33.77	3.48	25.88	213	0.45
113	12.42	33.65	4.34	251	200	9.35	33.97	2.84	26.27	176	0.55
133	11.23	33.64	4.07	230	250	8.74	34.13	2.30	26.50	154	0.63
152	10.70	33.79	3.40	210	300	8.74	34.31	1.30	26.65	140	0.71
176	9.80	33.90	3.21	188	400	7.90	34.41	0.47	26.85	121	0.84
201	9.33	33.97	2.84	175	500	6.84	34.41	0.36	27.00	107	0.96
249	8.74	34.13	2.33	154							
327	8.72	34.39	0.77	134							
426	7.56	34.41	0.40	116							
554	6.42	34.40	0.35	100							

PAOLINA-T; January 18, 1958; 1853 GCT; 29°32'N, 118°01.5'W; sounding, 1850 fm; wind, 270°, force 2; weather, fog; sea, very rough; wire angle, 08°. 107.60

0	17.42	33.86	5.66	339	0	17.42	33.86	5.66	24.56	339	0.00
10	17.36	33.85	5.56	338	10	17.36	33.85	5.56	24.57	338	0.03
30	17.38	33.84	5.61	339	20	17.36	33.84	5.57	24.57	338	0.07
50	18.01	34.12	5.57	333	30	17.38	33.84	5.61	24.56	339	0.10
60	18.52	34.34	5.39	329	50	18.01	34.12	5.57	24.62	333	0.17
70	18.53	34.33	5.32	330	75	18.52	34.34	5.33	24.66	329	0.25
80	18.48	34.34	5.34	328	100	15.05	33.87	4.16	25.11	286	0.33
89	17.46	34.22	5.17	313	150	11.05	33.78	3.68	25.84	217	0.46
99	15.24	33.89	4.16	289	200	10.05	34.07	2.39	26.24	179	0.56
112	13.12	33.73	4.26	258	250	9.86	34.34	1.34	26.48	156	0.64
132	11.72	33.68	4.05	236	300	9.16	34.34	1.25	26.60	145	0.72
151	11.02	33.79	3.67	216	400	7.85	34.34	0.79	26.80	126	0.86
198	10.06	34.04	2.46	182	500	6.81	34.34	0.43	26.95	112	0.98
246	9.91	34.34	1.38	157							
347	8.47	34.34	1.11	135							
444	7.39	34.34	0.60	119							
548	6.32	34.36	0.31	104							

PAOLINA-T; January 19, 1958; 0245 GCT; 29°10'N, 118°42'W; sounding, 1640 fm; wind, 270°, force 3; weather, partly cloudy; sea, high; wire angle, 11°. 107.70

0	17.37	33.75	5.42	345	0	17.37	33.75	5.42	24.49	345	0.00
10	17.38	33.77	5.51	344	10	17.38	33.77	5.51	24.50	344	0.03
30	17.32	33.75	5.32	343	20	17.35	33.76	5.40	24.50	344	0.07
54	17.30	33.77	5.44	342	30	17.32	33.75	5.32	24.51	343	0.10
63	17.31	33.75	5.46	343	50	17.30	33.76	5.43	24.52	342	0.17
74	17.33	33.75	5.73	343	75	17.33	33.75	5.72	24.51	343	0.26
84	17.08	33.75	5.63	339	100	14.82	33.60	5.90	24.96	301	0.34
99	14.89	33.60	5.91	303	150	11.30	33.45	5.19	25.53	246	0.48
113	14.08	33.58	5.70	288	200	9.55	33.73	3.90	26.07	195	0.59
131	12.86	33.53a)	5.60	268	250	8.26	33.99	2.82	26.46	158	0.68
151	11.20	33.45	5.16	244	300	7.55	34.09	2.15	26.65	140	0.76
175	10.06	33.49	4.77	222	400	6.58	34.18	1.08	26.85	121	0.90
199	9.59	33.72	3.91	197	500	5.82	34.25	0.63	27.00	107	1.01
245	8.36	33.98	2.88	160							
322	7.26	34.11	1.86	134							
418	6.46	34.19	0.95	119							
544	5.50	34.28	0.50	101							

a) Possible evaporation; value falls on property curve.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

110.33 PAOLINA-T; January 21, 1958; 2020 GCT; 29°50'N, 115°52'W; sounding, 57 fm; wind, 300°, force 5; weather, cloudy; sea, moderate; wire angle, 00°.

0	16.56	33.88	5.46	317	0	16.56	33.88	5.46	24.79	317	0.00
10	16.78	33.98	5.43	315	10	16.78	33.98	5.43	24.81	315	0.03
30	17.00	34.09	5.38	312	20	16.90	34.04	5.40	24.83	313	0.06
50	17.20	34.18	5.10	310	30	17.00	34.09	5.38	24.84	312	0.09
75	17.10	34.16	5.13	309	50	17.20	34.18	5.10	24.86	310	0.16
					75	17.10	34.16	5.13	24.87	309	0.24

110.35 PAOLINA-T; January 21, 1958; 1838 GCT; 29°46.5'N, 115°59'W; sounding, 740 fm; wind, 250°, force 4; weather, partly cloudy; sea, rough; wire angle, 00°.

0	17.21	34.14	5.18	313	0	17.21	34.14	5.18	24.83	313	0.00
10	17.20	34.16	5.18	312	10	17.20	34.16	5.18	24.84	312	0.03
30	17.20	34.14	5.28	313	20	17.20	34.15	5.24	24.84	312	0.06
40	17.16	34.14	5.20	312	30	17.20	34.14	5.28	24.83	313	0.09
50	17.00	34.13	5.03	309	50	17.00	34.13	5.03	24.87	309	0.16
59	15.52	33.99	3.69	288	75	14.76	33.89	3.17	25.18	279	0.23
69	15.02	33.90	3.36	284	100	13.42	33.87	3.20	25.46	253	0.30
84	14.37	33.88	3.02	271	150	11.40	33.87	3.03	25.84	216	0.42
98	13.46	33.87	3.20	254	200	10.62	34.22	1.67	26.26	177	0.52
112	13.00	33.90	2.87	243	250	9.84	34.31	1.41	26.46	158	0.60
136	11.78	33.80	3.39	228	300	9.36	34.37	1.02	26.58	146	0.68
165	11.10	34.02	2.65	200	400	8.29	34.45	0.68	26.82	124	0.82
198	10.63	34.22	1.70	178	500	7.15	34.39	0.50	26.94	113	0.94
246	9.86	34.31	1.41	158							
323	9.17	34.39	0.86	141							
421	8.03	34.46	0.64	120							
548	6.65	34.33	0.42	110							

110.40 PAOLINA-T; January 21, 1958; 1605 GCT; 29°42.5'N, 116°19'W; sounding, 1250 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 05°.

0	16.70	33.74	5.37	332	0	16.70	33.74	5.37	24.63	332	0.00
10	16.72	33.72	5.47	333	10	16.72	33.72	5.47	24.62	333	0.03
30	16.65	33.74	5.32	330	20	16.71	33.72	5.44	24.62	333	0.07
55	16.12	33.66	5.51	324	30	16.65	33.74	5.32	24.65	330	0.10
65	15.50	33.70	5.44	308	50	16.25	33.68	5.48	24.69	326	0.16
74	14.46	33.49	5.38	302	75	14.44	33.49	5.36	24.96	301	0.24
84	13.94	33.56	5.16	287	100	12.83	33.53	5.10	25.31	267	0.32
99	12.93	33.54	5.10	269	150	10.56	33.80	3.02	25.94	208	0.44
113	11.65	33.43	5.08	252	200	9.62	34.04	2.40	26.29	174	0.53
132	10.60	33.57	4.32	225	250	8.71	34.11	2.34	26.49	155	0.62
152	10.56	33.82	3.01	206	300	8.62	34.20	1.64	26.58	147	0.69
176	9.60	33.84	3.05	189	400	7.39	34.23	1.17	26.79	127	0.84
199	9.65	34.04	2.42	175	500	6.51	34.26	0.75	26.93	114	0.96
248	8.72	34.09	2.36	157							
325	8.55	34.27	1.30	141							
422	7.03	34.23	1.13	123							
551	6.28	34.29	0.52	108							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

110.50

PAOLINA-T; January 21, 1958; 0922 GCT; 29°19'N, 117°00'W; sounding, 1950 fm; wind, 330°, force 3; weather, partly cloudy; sea, slight; wire angle, 05°.

0	17.27	33.88	5.47	334	0	17.27	33.88	5.47	24.61	334	0.00
10	17.28	33.82	5.46	338	10	17.28	33.82	5.46	24.57	338	0.03
30	17.33	33.85	5.36	337	20	17.30	33.83	5.41	24.57	338	0.07
50	17.70	34.01	5.42	334	30	17.33	33.85	5.36	24.58	337	0.10
65	18.14	34.17	5.38	333	50	17.70	34.01	5.42	24.61	334	0.17
75	18.24	34.23	5.14	331	75	18.24	34.23	5.14	24.64	331	0.25
85	18.10	34.20	5.16	330	100	14.28	33.63	4.87	25.10	288	0.33
100	14.28	33.63	4.87	288	150	10.73	33.71	3.62	25.84	217	0.46
113	12.47	33.58	4.80	257	200	10.13	34.06	2.18	26.22	181	0.56
133	11.46	33.55	4.61	241	250	9.46	34.29	1.52	26.50	154	0.64
152	10.70	33.73	3.50	215	300	9.22	34.39	1.01	26.62	143	0.72
175	10.60	33.89	2.77	201	400	8.20	34.39	0.56	26.79	127	0.86
199	10.17	34.05	2.20	182	500	7.23	34.39	0.32	26.92	114	0.99
246	9.52	34.27	1.65	156							
322	9.09	34.40	0.82	140							
419	8.00	34.39	0.52	124							
546	6.82	34.39	0.25	108							

110.60

PAOLINA-T; January 21, 1958; 0241 GCT; 28°57'N, 117°40'W; sounding, 1920 fm; wind, 270°, force 2; weather, partly cloudy; sea, moderate; wire angle, 00°.

0	18.08	34.21	5.30	329	0	18.08	34.21	5.30	24.66	329	0.00
10	17.94	34.16	5.46	329	10	17.94	34.16	5.46	24.66	329	0.03
30	17.90	34.22	5.33	323	20	17.92	34.20	5.40	24.70	325	0.06
55	17.99	34.18	5.20	328	30	17.90	34.22	5.33	24.72	323	0.10
66	18.15	34.23	5.15	329	50	17.96	34.20	5.23	24.69	326	0.16
75	18.12	34.24	5.06	327	75	18.12	34.24	5.06	24.68	327	0.24
85	15.77	34.07	3.67	287	100	13.98	33.91	3.21	25.37	261	0.32
100	13.98	33.91	3.21	261	150	10.88	33.91		25.97	205	0.44
114	13.45	33.96	2.86	248	200	10.40	34.29	1.57	26.35	169	0.53
134	12.11	33.96	2.56	222	250	10.32	34.42	0.87	26.47	157	0.62
153	10.85	33.93	2.65	203	300	9.41	34.40	0.80	26.61	144	0.69
177	10.60	34.14	1.92	183	400	8.02	34.39	0.55	26.81	125	0.84
201	10.40	34.29	1.57	168	500	7.13	34.39	0.36	26.94	112	0.96
250	10.32	34.42	0.87	157							
328	8.86	34.39	0.73	137							
426	7.80	34.39	0.50	121							
554	6.66	34.39	0.26	106							

110.70

PAOLINA-T; January 20, 1958; 0329 GCT; 28°38'N, 118°18'W; sounding, 1750 fm; wind, 020°, force 4; weather, partly cloudy; sea, rough; wire angle, 02°.

0	17.54	33.97a)	5.47	333	0	17.54	33.97	5.47	24.62	333	0.00
10	17.53	33.90	5.44	338	10	17.53	33.90	5.44	24.57	338	0.03
30	17.43	33.88	5.41	338	20	17.50	33.89	5.43	24.57	338	0.07
55	17.49	33.96a)	5.40	332	30	17.43	33.88	5.41	24.57	338	0.10
66	17.62	-	5.33		50	17.48	33.94	5.40	24.62	333	0.17
75	17.72	-	5.16		75	17.72	34.20	5.16	24.75	321	0.25
85	16.42	33.94	4.93	311	100	13.45	33.69	4.23	25.31	267	0.32
98	13.80	33.73	4.19	271	150	11.02	33.85	3.13	25.89	212	0.45
114	12.28	33.58b)	4.42	253	200	10.28	34.16	2.06	26.27	176	0.55
133	11.85	33.80	3.46	229	250	9.83	34.38	1.27	26.52	153	0.63
153	10.94	-	3.07		300	8.78	34.33	1.15	26.65	140	0.71
177	10.98	-	2.06		400	7.57	34.32	0.70	26.83	123	0.84
201	10.24	34.16	2.06	176	500	6.30	34.28	0.61	26.97	109	0.97
249	9.84	34.38	1.27	153							
320p	8.36	34.31	1.12	135							
401p	7.54	34.32	0.68	123							
511p	6.12	34.28	0.61	107							

a) Salinity bottle number was not recorded on the data sheet. Since standard handling and titrating procedures were used, this salinity value is assumed to be listed correctly.

b) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δ_{T_3}	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m
110.80	PAOLINA-T; January 19, 1958; 2123 GCT; 28°19'N, 118°55.5'W; sounding, 2030 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 05°.										
0	18.14	34.02	5.28	344	0	18.14	34.02	5.28	24.51	344	0.00
10	18.08	34.02	5.53	342	10	18.08	34.02	5.53	24.53	342	0.03
30	18.05	34.02	5.49	341	20	18.06	34.02	5.51	24.53	342	0.07
55	18.05	34.04	5.44	340	30	18.05	34.02	5.49	24.53	341	0.10
65	18.04	34.02	5.40	340	50	18.05	34.02	5.45	24.54	340	0.17
75	18.05	-	5.40		75	18.05	34.02	5.40	24.54	340	0.26
84	17.32	-	5.34		100	14.10	33.77	4.84	25.24	274	0.34
99	14.19	33.78	4.88	275	150	11.90	33.96	2.52	25.82	218	0.46
113	13.16	33.61	4.31	267	200	10.23	34.15	1.88	26.27	176	0.56
132	11.87	33.68	3.89	239	250	8.92	34.20	1.83	26.53	152	0.64
151	11.90	-	2.48		300	8.89	34.39	1.15	26.68	137	0.72
174	10.31	33.93	2.69	194	400	7.81	34.42	0.48	26.86	120	0.85
199	10.26	34.15	1.88	177	500	6.82		0.45			
246	8.93	34.20	1.86	152							
322	8.85	34.47	0.72	131							
418	7.54	34.40	0.47	117							
545	6.45	-	0.45								
110.90	PAOLINA-T; January 19, 1958; 1450 GCT; 27°55.5'N, 119°32.5'W; sounding, 2180 fm; wind, 320°, force 4; weather, partly cloudy; sea, very rough; wire angle, 17°.										
0	17.45	33.88	5.56	338	0	17.45	33.88	5.56	24.57	338	0.00
10	17.43	33.87	5.56	338	10	17.43	33.87	5.56	24.57	338	0.03
29	17.46	33.87	5.51	338	20	17.43	33.87	5.54	24.57	338	0.07
58	17.48	33.89	5.56	338	30	17.46	33.87	5.51	24.57	338	0.10
67	17.50	33.89	5.52	338	50	17.46	33.88	5.53	24.57	338	0.17
76	17.49	33.93	5.37	325	75	17.49	33.92	5.40	24.60	335	0.25
90	15.12	33.73	5.18	298	100	13.28	33.63	4.73	25.30	268	0.33
104	12.76	33.62	4.55	259	150	10.78	33.92	2.85	26.00	202	0.45
117	11.96	33.72	3.87	237	200	9.46	34.11	2.42	26.36	167	0.54
136	10.96	33.84	3.40	211	250	8.34	34.13	2.38	26.56	148	0.62
153	10.74	33.94	2.78	200	300	7.98	34.23	1.73	26.70	135	0.70
180	10.04	34.04	2.56	181	400	6.90	34.25	1.00	26.86	120	0.83
203	9.40	34.12	2.40	165	500	6.00	34.30	0.54	27.03	104	0.94
254	8.27	34.13	2.37	148							
333	7.86	34.25	1.34	133							
436	6.36	34.25	0.87	113							
571	5.84	34.38	0.33	97							
113.30	PAOLINA-T; January 22, 1958; 0203 GCT; 29°23'N, 115°17.5'W; sounding, 30 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 03°.										
0	17.68	34.21	5.29	319	0	17.68	34.21	5.29	24.77	319	0.00
10	17.69	34.20	5.20	320	10	17.69	34.20	5.20	24.76	320	0.03
30	17.67	34.19	5.23	320	20	17.68	34.19	5.22	24.76	320	0.06
40	17.66	34.20	5.24	319	30	17.67	34.19	5.23	24.76	320	0.09

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

PAOLINA-T; January 22, 1958; 0558 GCT; 29°12.5'N, 115°41'W; sounding, 530 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 25°. 113.35

0	17.38	34.06	323	0	17.38	34.06	24.73	323	0.00
9	17.38	34.08	322	10	17.38	34.08	24.74	322	0.03
32	17.38	34.07	322	20	17.38	34.08	24.74	322	0.06
60	16.76	33.94	318	30	17.38	34.07	24.74	322	0.10
69	16.66	33.96	315	50	17.10	34.00	24.75	320	0.16
82	15.89	33.94	298	75	16.38	33.95	24.87	309	0.24
91	14.45	33.84	276	100	13.64	33.80	25.36	263	0.31
108	13.08	33.78	253	150	11.87	34.07	25.91	210	0.43
121	12.64	33.86a)	239	200	10.68	34.27	26.29	174	0.53
139	12.16	34.02a)	219	250	10.03	34.44	26.53	152	0.61
187	10.94	34.19	185	300	9.38	34.43	26.63	142	0.69
213	10.51	34.32b)	169	400	8.19	34.39	26.79	127	0.83
266	9.84	34.47	146	500	7.29	34.39	26.92	115	0.96
347	8.78	34.36	137	600	(6.43)	(34.32)	(26.99)	(108)	(1.07)
453	7.71	34.41	119						
597	6.44	34.33	108						

PAOLINA-T; January 22, 1958; 1225 GCT; 29°03'N, 116°04'W; sounding, 450 fm; wind, 320°, force 6; weather, partly cloudy; sea, very rough; wire angle, 16°. 113.40

0	17.07	33.91	328	0	17.07	33.91	24.67	328	0.00
10	17.08	33.91	328	10	17.08	33.91	24.67	328	0.03
33	17.09	33.88	329	20	17.08	33.90	24.67	328	0.06
63	17.08	33.93	325	30	17.08	33.88	24.66	329	0.10
72	14.78	33.57c)	302	50	17.08	33.90	24.68	327	0.16
87	13.33	33.51	278	75	14.30	33.55	25.03	294	0.24
97	14.02	33.84	267	100	13.86	33.84	25.35	264	0.31
116	12.53	33.82	240	150	11.00	33.84	25.89	212	0.43
129	11.90	33.86	226	200	9.52	34.04	26.30	173	0.53
149	11.10	33.84	213	250	9.05	34.24	26.54	151	0.61
172	10.06	34.02	184	300	8.74	34.29	26.63	142	0.69
200	9.52	34.04	173	400	7.82	34.35	26.81	125	0.83
229	9.20	34.20	156	500	6.62	34.37	27.00	107	0.95
285	8.86	34.28	145	600	5.91	34.39	27.10	97	1.06
371	8.16	34.34	130						
481	6.80	34.37	110						
627	5.80	34.39	96						

PAOLINA-T; January 22, 1958; 1847 GCT; 28°41'N, 116°30'W; sounding, 2200 fm; wind, 330°, force 4; weather, partly cloudy; sea, very rough; wire angle, 12°. 113.50

0	17.34	33.91	5.42	333	0	17.34	33.91	5.42	24.62	333	0.00
10	17.34	33.91	5.34	333	10	17.34	33.91	5.34	24.62	333	0.03
29	17.38	33.91	5.39	334	20	17.36	33.91	5.36	24.62	333	0.07
58	17.96	34.23	5.24	324	30	17.38	33.91	5.38	24.61	334	0.10
68	17.99	34.19	5.28	327	50	17.93	34.20	5.27	24.70	325	0.16
77	17.92	34.22	4.93	324	75	17.94	34.20	5.00	24.69	326	0.25
91	15.37	33.93	4.19	288	100	14.02	33.81	3.88	25.28	270	0.32
105	13.44	33.78	3.75	261	150	10.21	33.73	3.66	25.94	207	0.44
118	12.26	33.77	3.48	239	200	9.48	34.05	2.44	26.32	171	0.54
136	10.84	33.66	4.05	223	250	9.48	34.34	1.56	26.55	150	0.62
153	10.11	33.75	3.57	203	300	9.10	34.38	0.90	26.65	140	0.70
181	9.50	33.93	3.00	181	400	8.02	34.41	0.80	26.83	123	0.83
203	9.48	34.07	2.38	170	500	7.12	34.43	0.52	26.98	109	0.95
253	9.40	34.34b)	1.34	149							
331	8.88	34.39	0.81	137							
433	7.62	34.42	0.78	117							
568	6.58	34.43	0.32	102							

a) Possible evaporation; value falls on property curve.
b) Loose bottle cap; value falls on property curve.
c) Salinity bottle number was not recorded on the data sheet. Since standard handling and titrating procedures were used, this salinity value is assumed to be listed correctly.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

113.60 PAOLINA-T; January 23, 1958; 0135 GCT; 28°20.5'N, 117°20.5'W; sounding, 2000+ fm; wind, 300°, force 5; weather, partly cloudy; sea, high; wire angle, 06°.

0	17.66	34.05	5.16	330	0	17.66	34.05	5.16	24.65	330	0.00
10	17.91	34.11	5.40	331	10	17.91	34.11	5.40	24.64	331	0.03
30	18.42	34.31a)	5.06	329	20	18.00	34.15	5.33	24.64	331	0.07
60	18.33	34.29	5.15	328	30	18.42	34.31	5.06	24.66	329	0.10
70	18.29	34.27	5.20	329	50	18.36	34.30	5.10	24.67	328	0.16
80	17.84	34.16	5.12	326	75	18.17	34.24	5.18	24.67	328	0.25
96	15.33	33.93	3.93	287	100	14.78	33.91	3.70	25.20	278	0.32
111	13.90	33.92	3.20	259	150	12.69	34.09	2.27	25.77	224	0.45
125	13.38	34.04	2.45	240	200	9.50	33.96	3.10	26.25	178	0.55
145	12.99	34.10	2.24	228	250	9.03	34.20	2.19	26.50	154	0.64
164	10.84	33.91	2.82	204	300	8.55	34.26	1.52	26.63	142	0.71
194	9.54	33.89	3.29	185	400	7.76	34.34	0.62	26.82	124	0.85
218	9.40	34.09	2.50	167	500	7.01	34.39	0.39	26.96	111	0.97
271	8.82	34.23	1.95	148	600	(6.10)	(34.41)	(0.37)	(27.09)	(98)	(1.08)
352	8.10	34.30	0.90	132							
459	7.37	34.38	0.42	116							
599	6.14	34.41	0.37	98							

113.70 PAOLINA-T; January 23, 1958; 0705 GCT; 28°04.5'N, 117°51'W; sounding, 1840 fm; wind, 300°, force 3; weather, clear; sea, very rough; wire angle, 05°.

0	18.12	33.99	5.28	345	0	18.12	33.99	5.28	24.49	345	0.00
10	18.13	34.00	5.38	345	10	18.13	34.00	5.38	24.49	345	0.03
30	18.12	34.01	5.20	344	20	18.12	34.00	5.28	24.49	345	0.07
54	17.77	33.98	5.38	338	30	18.12	34.01	5.20	24.50	344	0.10
63	17.72	34.03	5.35	332	50	17.81	33.98	5.36	24.56	339	0.17
74	17.81	34.09	5.33	331	75	17.78	34.09	5.33	24.65	331	0.26
82	15.84	33.78	5.34	310	100	13.62	33.79	4.13	25.36	263	0.33
97	13.94	33.79	4.23	270	150	10.30	33.79	3.78	25.98	203	0.45
112	12.72	33.77	3.81	247	200	9.23	33.98	2.81	26.30	173	0.55
131	12.07	33.84	3.42	231	250	8.63	34.21	2.22	26.58	147	0.63
150	10.30	33.79	3.78	203	300	8.37	34.31	1.12	26.70	135	0.70
174	9.60	33.86	3.21	187	400	7.83	34.40	0.55	26.85	121	0.84
198	9.24	33.97	2.83	174	500	6.92	34.41	0.38	26.98	108	0.95
247	8.66	34.20	2.26	148							
324	8.30	34.34	0.94	132							
422	7.62	34.42	0.48	117							
550	6.44	34.40	0.35	103							

117.26 PAOLINA-T; January 25, 1958; 1240 GCT; 28°56'N, 114°41'W; sounding, 40 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 00°.

0	17.21	34.16	5.38	312	0	17.21	34.16	5.38	24.84	312	0.00
10	17.23	34.18	5.40	311	10	17.23	34.18	5.40	24.85	311	0.03
30	17.25	34.20	5.34	310	20	17.24	34.19	5.36	24.86	310	0.06
51	17.20	34.17	5.28	311	30	17.25	34.20	5.34	24.86	310	0.09
					50	17.20	34.17	5.28	24.85	311	0.16

117.30 PAOLINA-T; January 25, 1958; 0945 GCT; 28°48'N, 114°56'W; sounding, 50 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 10°.

0	18.00	34.33	5.26	318	0	18.00	34.33	5.26	24.78	318	0.00
10	18.03	34.34	5.28	318	10	18.03	34.34	5.28	24.78	318	0.03
30	18.03	34.36	5.24	316	20	18.03	34.35	5.26	24.79	317	0.06
49	17.72	34.29	5.41	314	30	18.03	34.36	5.24	24.80	316	0.10
74	17.22	34.16	5.15	312	50	17.72	34.28	5.41	24.82	314	0.16
					75	(17.20)	(34.15)	(5.12)	(24.84)	(312)	(0.24)

a) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{3}^{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{3}^{-5} 10^{-5} cm/g	ΔD dyn. m
PAOLINA-T; January 25, 1958; 0650 GCT; 28°38'N, 115°16'W; sounding, 100 fm; wind, 330°, force 5; weather, clear; sea, very rough; wire angle, 10°.											117.35
0	18.22	34.35	5.24	322	0	18.22	34.35	5.24	24.74	332	0.00
10	18.26	34.37	5.33	320	10	18.26	34.37	5.33	24.76	320	0.03
30	18.18	34.36	5.30	320	20	18.20	34.37	5.30	24.76	320	0.06
49	18.08	34.32	5.26	320	30	18.18	34.36	5.30	24.76	320	0.10
74	17.88	34.30a)	5.09	317	50	18.07	34.32	5.24	24.76	320	0.16
99	16.94	34.16	4.19	306	75	17.85	34.30	5.05	24.80	316	0.24
123	13.59	33.87	3.22	256	100	16.84	34.14	4.14	24.92	305	0.32
PAOLINA-T; January 24, 1958; 0708 GCT; 28°27'N, 115°35'W; sounding, 450 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 08°.											117.40
0	19.19	34.54	5.18	330	0	19.19	34.54	5.18	24.65	330	0.00
10	19.20	34.56	5.13	330	10	19.20	34.56	5.13	24.65	330	0.03
30	19.21	34.56	5.21	330	20	19.21	34.56	5.19	24.65	330	0.07
40	19.01	34.51	5.08	329	30	19.21	34.56	5.21	24.65	330	0.10
50	17.97	34.31	4.31	317	50	17.97	34.31	4.31	24.79	317	0.16
59	17.37	34.27	4.06	308	75	15.95	34.18	3.41	25.15	282	0.24
69	16.53	34.22	3.63	293	100	14.46	34.08	2.85	25.40	259	0.31
83	15.22	34.13	3.12	271	150	12.32	34.18	1.83	25.91	210	0.43
97	14.58	34.08	2.89	261	200	11.09	34.36	1.23	26.28	175	0.52
112	13.90	34.10	2.44	246	250	10.46	34.41	1.06	26.44	160	0.61
135	12.82	34.14	1.95	223	300	10.10	34.47	0.79	26.55	150	0.69
163	11.93	34.23	1.71	198	400	8.73	34.44	0.59	26.75	131	0.84
197	11.15	34.36	1.26	176	500	7.62	34.39	0.46	26.87	119	0.97
244	10.52	34.41	1.09	161							
321	9.96	34.49	0.67	146							
417	8.48	34.43	0.58	128							
545	7.32	34.38	0.41	116							
PAOLINA-T; January 24, 1958; 0107 GCT; 28°06.5'N, 116°13.5'W; sounding, 2450 fm; wind, 320°, force 3; weather, clear; sea, rough; wire angle, 10°.											117.50
1	17.72	34.00	5.47	335	0	(17.72)	(34.00)	(5.47)	(24.60)	(335)	(0.00)
10	17.46	33.98	5.54	330	10	17.46	33.98	5.54	24.65	330	0.03
30	17.48	34.01	5.43	329	20	17.46	33.99	5.50	24.66	329	0.07
55	18.08	34.24	5.20	326	30	17.48	34.01	5.43	24.66	329	0.10
63	17.61	34.16	4.77	321	50	18.12	34.23	5.22	24.68	327	0.16
73	16.17	33.92	4.46	306	75	15.83	33.87	4.47	24.94	303	0.24
84	14.45	33.73	4.47	284	100	13.47	33.78	3.66	25.38	261	0.32
99	13.51	33.78	3.71	262	150	11.20	34.00	2.24	25.99	203	0.43
113	12.98	33.89	2.87	243	200	10.86	34.36	1.15	26.32	171	0.53
132	12.17	34.00	2.42	220	250	9.80	34.36	1.08	26.51	153	0.61
150	11.20	34.00	2.24	203	300	9.29	34.41	0.76	26.63	142	0.69
174	11.16	34.17	1.73	190	400	8.18	34.40	0.53	26.80	126	0.82
197	10.93	34.36	1.18	172	500	7.06	34.38	0.38	26.94	113	0.95
243	9.90	34.36	1.11	155							
318	9.12	34.42	0.67	139							
412	8.04	34.40	0.52	124							
537	6.69	34.37	0.33	108							

a) Possible evaporation; value falls on property curve.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm^3/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm^3/g	ΔD dyn. m
117.60	PAOLINA-T; January 23, 1958; 1943 GCT; 27°49'N, 116°50'W; sounding, 2000 fm; wind, 040°, force 3; weather, clear; sea, slight; wire angle, 04°.										
0	17.45	33.96	5.50	332	0	17.45	33.96	5.50	24.63	332	0.00
10	17.30	33.99	5.47	326	10	17.30	33.99	5.47	24.69	326	0.03
30	17.29	33.91	5.57	332	20	17.29	33.95	5.51	24.66	329	0.06
55	17.26	33.96	5.44	327	30	17.29	33.91	5.57	24.63	332	0.10
65	17.61	34.13	5.33	323	50	17.26	33.95	5.47	24.67	328	0.16
74	16.92	34.00	5.05	317	75	16.75	33.97	5.01	24.81	315	0.24
84	14.57	33.68	4.64	290	100	13.02	33.68	3.87	25.39	260	0.32
98	13.11	33.68	3.95	262	150	11.60	34.14	1.98	26.02	200	0.43
114	12.54	33.86	3.09	238	200	10.39	34.28	1.48	26.35	169	0.53
133	12.25	34.04	2.24	219	250	9.81	34.42	0.85	26.56	149	0.61
152	11.54	34.15	1.96	198	300	9.22	34.42	0.73	26.64	141	0.68
175	10.86	34.22	1.64	182	400	8.08	34.40	0.48	26.81	125	0.82
200	10.39	34.28	1.48	169	500	7.15	34.40	0.36	26.95	111	0.95
248	9.82	34.42	0.85	149							
325	8.95	34.41	0.58	137							
422	7.90	34.40	0.44	122							
550	6.70	34.41	0.32	105							
117.70	PAOLINA-T; January 23, 1958; 1323 GCT; 27°32.5'N, 117°33'W; sounding, 2000 fm; wind, 040°, force 3; weather, missing; sea, moderate; wire angle, 02°.										
0	17.98	-	5.21		0	17.98	(34.01)	5.21	(24.54)	(341)	(0.00)
10	18.00	34.01	5.29	341	10	18.00	34.01	5.29	24.54	341	(0.03)
30	17.99	-	5.45		20	17.99	(34.01)	5.37	(24.54)	(341)	(0.07)
55	17.98	-	5.38		30	17.99	(34.01)	5.45	(24.54)	(341)	(0.10)
65	17.99	-	5.41		50	17.98	(34.01)	5.38	(24.54)	(341)	(0.17)
75	17.99	34.04a)	5.41		75	17.99	(34.01)	5.41	(24.54)	(341)	(0.26)
85	17.99	33.96	5.42	344	100	15.49	33.73	5.44	24.91	305	(0.34)
99	15.60	33.73	5.48	308	150	11.98	33.82	3.55	25.69	231	(0.47)
115	14.32	33.86b)	3.86	272	200	9.57	33.90	3.16	26.19	184	(0.58)
133	13.46	33.98	3.03	246	250	8.49	34.09	2.65	26.50	154	(0.66)
154	11.63	33.78	3.69	227	300	8.03	34.18	1.87	26.65	140	(0.74)
176	9.93	33.68c)	4.21	206	400	7.05	34.27	0.96	26.86	120	(0.88)
201	9.54	33.93	3.12	181	500	6.31		0.52			
248	8.52	34.07	2.70	156							
325	7.85	34.22c)	1.47	134							
423	6.85	34.29	0.87	116							
550	6.08	-	0.35								
118.39	PAOLINA-T; January 25, 1958; 0250 GCT; 28°18.5'N, 115°24.5'W; sounding, 163 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 05°.										
0	18.99	34.52	5.62	327	0	18.99	34.52	5.62	24.68	327	0.00
10	19.00	34.48	5.07	331	10	19.00	34.48	5.07	24.64	331	0.03
30	17.18	34.09	5.31	316	20	17.61	34.17	5.29	24.76	320	0.06
50	17.12	34.04u	5.15		30	17.18	34.09	5.31	24.80	316	0.10
75	16.37	34.07	4.18	300	50	17.12	34.13	5.15	24.84	312	0.16
99	14.04	33.94	3.17	260	75	16.37	34.07	4.18	24.97	300	0.24
124	13.38	34.01	2.71	242	100	14.00	33.94	3.14	25.39	260	0.31
163	11.47	34.19	1.82	194	150	12.18	34.13	2.13	25.90	211	0.43
201	10.34	34.31	1.27	166	200	10.39	34.31	1.31	26.37	167	0.52

a) Possible evaporation; value does not fall on property curve.
b) Loose bottle cap; value falls on property curve.
c) Possible evaporation; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED			
Z m	T °C	S ‰	O_2 ml/L	$\delta_{-5}T_3$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{-5}T_3$ 10^{-5} cm/g	ΔD dyn. m	

STRANGER; January 27, 1958; 1020 GCT; 28°19'N, 114°53'W; sounding, 60 fm; wind, 320°, force 6; weather, overcast; sea, very rough; wire angle, 03°. 119.33

0	17.64	34.21	5.26	318	0	17.64	34.21	5.26	24.78	318	0.00	
10	17.66	34.22	5.27	318	10	17.66	34.22	5.27	24.78	318	0.03	
29	17.66	34.21	5.27	319	20	17.66	34.22	5.27	24.78	318	0.06	
49	17.66	34.20	5.29	320	30	17.66	34.21	5.27	24.77	319	0.10	
74	17.65	34.19	5.30	320	50	17.66	34.20	5.29	24.76	320	0.17	
99	17.66	34.20	5.26	320	75	17.65	34.20	5.30	24.76	320	0.25	
					100	(17.66)	(34.20)		(27.76)	(320)	(0.33)	

STRANGER; January 27, 1958; 0802 GCT; 28°03'N, 114°54'W; sounding, 45 fm; wind, 340°, force 6; weather, overcast; sea, very rough; wire angle, 00°. 120.35

0	17.74	34.26	5.18	317	0	17.74	34.26	5.18	24.79	317	0.00	
10	17.76	34.25	5.17	318	10	17.76	34.25	5.17	24.78	318	0.03	
29	17.75	34.25	5.23	317	20	17.76	34.25	5.20	24.78	318	0.06	
49	17.52	34.22	5.20	314	30	17.75	34.25	5.23	24.79	317	0.10	
73	17.44	34.21	5.12	313	50	17.51	34.22	5.19	24.82	314	0.16	
					75	(17.44)	(34.21)	(5.11)	(24.83)	(313)	(0.24)	

STRANGER; January 26, 1958; 0348 GCT; 27°40'N, 115°28'W; sounding, 1150 fm; wind, 040°, force 5; weather, cloudy; sea, moderate; wire angle, 06°. 120.45

0	19.95	34.53	4.97	351	0	19.95	34.53	4.97	24.43	351	0.00	
10	19.98	34.54	5.11	350	10	19.98	34.54	5.11	24.44	350	0.04	
29	19.96	34.53	4.96	351	20	19.97	34.54	5.03	24.44	350	0.07	
53	19.30	34.51	4.97	336	30	19.96	34.53	4.96	24.43	351	0.10	
63	18.90	34.44	4.74	331	50	19.60	34.52	4.96	24.52	342	0.17	
73	17.88a)	34.51	3.87	302	75	17.60	34.46	3.68	24.98	299	0.25	
82	16.42	34.18	3.14	293	100	13.63	33.96	3.02	25.48	251	0.32	
95	14.24	33.92	3.30	266	150	11.74	34.26	1.48	26.09	193	0.44	
110	12.98	34.04	2.53	232	200	10.89	34.48	0.88	26.41	163	0.53	
128	12.44	34.13	2.02	216	250	10.71	34.59	0.39	26.53	151	0.61	
147	11.84	34.25	1.51	196	300	10.02	34.55	0.38	26.61	144	0.68	
170	11.29	34.34	1.13	180	400	8.88	34.50	0.30	26.76	129	0.82	
192	10.95	34.43	0.98	167	500	7.68	34.43	0.38	26.89	117	0.95	
237	10.82	34.59	0.45	154								
310	9.90	34.54	0.37	142								
401	8.87	34.50	0.29	129								
530	7.28	34.40	0.41	114								

STRANGER; January 26, 1958; 0002 GCT; 27°30'N, 115°49'W; sounding, 2200 fm; wind, 340°, force 4; weather, cloudy; sea, moderate; wire angle, 14°. 120.50

0	18.24	34.19	5.18	334	0	18.24	34.19	5.18	24.61	334	0.00	
10	18.26	34.20	5.23	334	10	18.26	34.20	5.23	24.61	334	0.03	
28	18.36	34.27	5.16	331	20	18.31	34.23	5.19	24.63	332	0.07	
57	18.71	34.41	5.05	329	30	18.37	34.28	5.15	24.64	331	0.10	
66	18.82	34.51	5.07	324	50	18.60	34.36	5.06	24.66	329	0.16	
75	18.83	34.51	5.03	324	75	18.83	34.51	5.03	24.71	324	0.25	
89	17.14	34.24	3.86	304	100	14.90	34.11	2.75	25.33	266	0.32	
102	14.60	34.09	2.64	261	150	12.67	34.40	0.89	26.01	201	0.44	
115	13.49	34.05	2.38	242	200	11.90	34.60	0.45	26.32	171	0.53	
133	12.91	34.27	1.47	215	250	11.01	34.61	0.35	26.49	155	0.62	
149	12.68	34.40	0.95	201	300	10.15	34.55	0.36	26.60	145	0.69	
176	12.26	34.52	0.60	184	400	8.75	34.46	0.31	26.76	129	0.84	
196	11.99	34.60	0.49	173	500	7.50	34.41	0.30	26.91	116	0.96	
244	11.11	34.61	0.35	157								
319	9.82	34.53	0.36	141								
418	8.53	34.45	0.30	127								
551	6.83	34.39	0.28	108								

a) Mean value of 17.82 and 17.94°C.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_{-5}^{3}	Z	T	S	O_2	σ_t	δT_{-5}^{3}	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

120.60 STRANGER; January 25, 1958; 1910 GCT; 27°13'N, 116°31'W; sounding, 2050 fm; wind, 360°, force 3; weather, cloudy; sea, moderate; wire angle, 16°.

0	18.00	33.97	5.18	344	0	18.00	33.97	5.18	24.50	344	0.00
9	18.02	33.95	5.24	346	10	18.02	33.95	5.24	24.48	346	0.03
28	17.98	33.99	5.37	342	20	18.00	33.98	5.31	24.51	343	0.07
51	18.00	34.13	5.30	332	30	17.98	34.00	5.37	24.53	341	0.10
60	18.00	34.13	5.38	332	50	18.00	34.12	5.31	24.62	333	0.17
69	17.98	34.12	5.28	332	75	17.69	34.08	5.21	24.66	329	0.25
78	16.98	33.97	5.20	320	100	14.90	33.84	4.70	25.12	285	0.33
91	14.98	33.76	4.74	293	150	10.70	33.88	2.95	25.97	204	0.45
104	13.32	33.66	4.30	267	200	9.12	34.09	2.73	26.39	164	0.55
120	12.17	33.74	3.44	240	250	8.77	34.17	2.10	26.53	152	0.63
136	11.34	33.86	2.98	216	300	8.14	34.24	1.51	26.66	139	0.70
156	10.47	33.89	2.95	199	400	7.32	34.32	0.65	26.86	120	0.84
177	9.56	34.04	3.02	173	500	(6.62)	(34.40)	(0.33)	(27.03)	(104)	(0.96)
220	9.04	33.89r	2.51								
288	8.38	34.23	1.66	141							
375	7.54	34.30	0.79	124							
496	6.63	34.40	0.34	105							

120.70 STRANGER; January 25, 1958; 1349 GCT; 26°52.5'N, 117°10'W; sounding, 2150 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 03°.

0	18.68	34.25	5.14	339	0	18.68	34.25	5.14	24.56	339	0.00
10	18.70	34.24	5.16	341	10	18.70	34.24	5.16	24.53	341	0.03
30	18.69	34.25	5.09	340	20	18.70	34.24	5.13	24.54	340	0.07
54	18.70	34.25	5.15	340	30	18.69	34.25	5.09	24.54	340	0.09
64	18.71	34.25	5.12	341	50	18.70	34.25	5.13	24.54	340	0.16
73	18.71	34.25	5.11	341	75	18.67	34.24	5.08	24.54	340	0.24
83	16.34	34.01	4.73	303	100	14.10	33.88	5.10	25.32	266	0.32
97	14.40	33.86	5.13	273	150	11.63	34.14	2.13	26.02	200	0.44
112	13.34	33.99	4.78	243	200	11.39	34.51	0.44	26.34	169	0.53
129	12.40	34.04	3.90	222	250	10.23	34.50	0.52	26.54	150	0.62
148	11.70	34.14	2.21	202	300	9.60	34.47	0.43	26.63	142	0.69
170	11.63	34.33	0.89	187	400	8.28	34.47	0.36	26.84	122	0.83
193	11.54	34.50	0.44	172	500	6.92	34.40	0.28	26.98	109	0.95
237	10.45	34.51	0.54	153							
310	9.46	34.47	0.41	140							
403	8.21	34.47	0.35	121							
526	6.61	34.38	0.25	106							

120.80 STRANGER; January 25, 1958; 0902 GCT; 26°32.5'N, 117°48.5'W; sounding, 2150 fm; wind, 320°, force 3; weather, missing; sea, moderate; wire angle, 00°.

0	18.76	34.47	4.92	325	0	18.76	34.47	4.92	24.70	325	0.00
10	18.76	34.29	5.26	338	10	18.76	34.29	5.26	24.57	338	0.03
30	18.77	34.27	5.12	340	20	18.76	34.28	5.17	24.56	339	0.07
54	18.78	34.28	5.17	339	30	18.77	34.27	5.12	24.55	340	0.10
63	18.77	34.27	5.27	340	50	18.78	34.28	5.15	24.56	339	0.17
73	17.71	34.09	5.29	328	75	17.35	34.05	5.30	24.72	323	0.25
83	15.18	33.81	5.30	293	100	13.00	33.64	5.20	25.36	262	0.33
112	11.86	33.58	4.82	246	150	11.80	34.09	1.60	25.94	207	0.44
131	10.94	33.69	3.92	222	200	11.67	34.54		26.31	172	0.54
149	11.74	34.06	1.69	208	250	10.60	34.56	0.75	26.52	152	0.62
172	12.12	34.47	0.92	185	300	9.87	34.57	0.60	26.66	139	0.70
196	12.14	34.63	0.70	174	400	8.39	34.43	0.36	26.80	126	0.83
240	10.86	34.56	0.78	156	500	7.30	34.47	0.30	26.98	109	0.95
312	9.72	34.57	0.55	137							
404	8.32	34.43	0.34	126							
527	7.03	34.48	0.29	105							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_3	Z	T	S	O_2	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

STRANGER; January 24, 1958; 0919 GCT; 27°24'N, 114°40'W; sounding, 39 fm; wind, 020°, force 3; weather, clear; sea, moderate; wire angle, 00°. 123.37

0	20.08	34.57a)	4.84	351	0	20.08	34.57	4.84	24.43	351	0.00
10	20.11	34.60	5.00	349	10	20.11	34.60	5.00	24.45	349	0.04
30	19.74	34.52	4.98	346	20	19.98	34.57	4.99	24.46	348	0.07
49	18.99	34.42	4.86	334	30	19.74	34.52	4.98	24.48	346	0.10
					50	(18.94)	(34.42)		(24.62)	(333)	(0.16)

STRANGER; January 24, 1958; 1205 GCT; 27°16'N, 114°59'W; sounding, 1000 fm; wind, 330°, force 5; weather, clear; sea, rough; wire angle, 06°. 123.42

0	20.12	34.67	5.02	344	0	20.12	34.67	5.02	24.50	344	0.00
10	20.13	34.58	4.91	351	10	20.13	34.58	4.91	24.43	351	0.03
29	20.14	34.56	4.92	353	20	20.13	34.57	4.92	24.42	352	0.07
58	20.06	34.54	5.01	353	30	20.14	34.56	4.92	24.41	353	0.10
68	17.10	34.08	4.41	315	50	20.11	34.56	4.96	24.41	353	0.18
78	15.05	33.95	3.63	282	75	15.60	33.97	3.85	25.07	290	0.26
92	13.60	33.91	3.40	254	100	13.25	33.96	3.10	25.56	244	0.32
105	13.10	34.00	2.74	238	150	11.80	34.19	1.78	26.03	199	0.44
120	12.94	34.16	2.00	223	200	11.19	34.44	0.95	26.32	171	0.53
138	12.09	34.15	1.93	208	250	10.52	34.52	0.63	26.50	154	0.61
156	11.64	34.22	1.68	195	300	10.02	34.55	0.47	26.61	144	0.69
183	11.28	34.37	1.20	177	400	8.80	34.52	0.34	26.80	126	0.83
206	11.14	34.47	0.89	167	500	7.60	34.46	0.30	26.94	113	0.96
255	10.46	34.52	0.62	152							
333	9.68	34.56	0.36	137							
435	8.31	34.49	0.34	121							
568	6.94	34.45	0.24	105							

STRANGER; January 24, 1958; 1628, 1702 GCT; 27°00'N, 115°32'W; sounding, 2050 fm; wind, 320°, force 3; weather, clear; sea, rough; wire angle, 00°, 08°. 123.50

0	19.15	34.56	4.89	328	0	19.15	34.56	4.89	24.67	328	0.00
10	19.30	34.59	4.91	330	10	19.30	34.59	4.91	24.65	330	0.03
30	19.06	34.57	5.08	326	20	19.20	34.58	5.00	24.67	328	0.06
59	16.43	34.09	3.82	300	30	19.06	34.57	5.08	24.69	326	0.10
69	15.56	34.11	3.09	279	50	19.00	34.55	5.07	24.70	325	0.16
78	14.68b)	34.02	3.05	267	75	15.03	34.06	3.05	25.26	272	0.24
92	13.42	34.02	2.75	244	100	13.39	34.11	2.74	25.65	235	0.30
107	12.82	34.13	2.06	223	150	11.57	34.28	1.40	26.14	189	0.41
121	12.24	34.22	1.72	206	200	10.78	34.44	1.05	26.40	164	0.50
140	11.74	34.25	1.47	194	250	10.20	34.55	0.67	26.59	146	0.58
158	11.40	34.31	1.34	184	300	9.60	34.54	0.55	26.68	137	0.65
186	10.90	34.38	1.06	170	400	8.50	34.52	0.39	26.84	122	0.78
208	10.70	34.49	1.03	159	500	7.42	34.52	0.32	27.00	107	0.90
256	10.14	34.55	0.64	145							
335	9.20	34.52	0.51	132							
436	8.12	34.52	0.35	117							
571	6.76	34.51	0.29	98							

a) Salinity bottle numbers were not recorded on the data sheet. Since standard handling and titrating procedures were used, these salinity values are assumed to be in correct order.

b) Alternate value, 14.46°C, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

123.60 STRANGER; January 24, 1958; 2159, 2225 GCT; 26°42'N, 116°10'W; sounding, 2100 fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 09°, 10°.

0	18.70	34.43	5.25	327	0	18.70	34.43	5.25	24.68	327	0.00
10	18.70	34.43	5.26	327	10	18.70	34.43	5.26	24.68	327	0.03
29	18.56	34.41	5.23	325	20	18.62	34.42	5.25	24.69	326	0.06
53	18.56	34.41	5.17	325	30	18.56	34.41	5.23	24.70	325	0.10
62	18.54	34.42	5.24	322	50	18.56	34.41	5.20	24.70	325	0.16
72	18.54	34.40	5.24	326	75	18.53	34.40	5.24	24.70	325	0.24
82	18.52	34.40	5.25	325	100	14.87	33.94	3.90	25.21	277	0.32
96	14.89	33.86	4.52	284	150	12.10	34.10	2.13	25.90	212	0.56
110	14.82	34.16	2.50	260	200	11.41	34.47	0.85	26.31	172	0.66
130	12.90	34.03	2.51	232	250	10.74	34.55	0.60	26.49	155	0.75
148	12.18	34.09	2.18	214	300	9.86	34.52	0.47	26.63	142	0.83
171	12.22	34.37	1.13	194	400	8.32	34.43	0.40	26.80	126	0.96
					500	7.23	34.41	0.26	26.94	112	1.09
188	11.86	34.49	0.79	179							
234	11.12	34.56	0.64	161							
307	9.77	34.52	0.47	141							
400	8.32	34.43	0.40	125							
524	7.00	34.41	0.22	109							

123.70 STRANGER; January 25, 1958; 0312 GCT; 26°18.5'N, 116°54'W; sounding, 2050 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 09°.

0	18.38	34.07	5.22	345	0	18.38	34.07	5.22	24.49	345	0.00
10	18.38	34.05	5.15	347	10	18.38	34.05	5.15	24.47	347	0.03
29	18.28	34.06	5.17	344	20	18.32	34.06	5.16	24.49	345	0.07
58	18.34	34.04	5.28	347	30	18.29	34.06	5.18	24.50	344	0.10
68	18.35	34.05	5.18	346	50	18.33	34.04	5.25	24.48	346	0.17
78	18.39	34.06	4.51	346	75	18.37	34.06	4.65	24.48	346	0.26
92	18.45	34.09	4.21	346	100	17.74	34.00	3.99	24.59	336	0.35
106	15.78	33.78	3.65	308	150	12.63	34.18	1.90	25.85	216	0.59
120	13.68	33.66	2.76	274	200	11.98	34.50	0.87	26.22	181	0.69
139	12.22	33.73	2.37	242	250	10.50	34.46	0.89	26.46	158	0.78
156	12.54	34.23	1.87	210	300	9.63	34.45	0.70	26.60	144	0.86
184	12.18	34.42	1.20	189	400	8.42	34.47	0.40	26.81	124	1.00
206	11.92	34.51	0.84	178	500	7.30	34.45	0.34	26.96	110	1.13
255	10.38	34.45	0.90	156							
331	9.22	34.45	0.60	138							
433	8.04	34.47	0.33	119							
564	6.57	34.41	0.34	103							

127.34 STRANGER; January 24, 1958; 0500 GCT; 26°58'N, 114°10'W; sounding, 50 fm; wind, 020°, force 5; weather, clear; sea, rough; wire angle, 00°.

0	19.99	34.55	5.10	350	0	19.99	34.55	5.10	24.44	350	0.00
10	20.02	34.54	5.07	352	10	20.02	34.54	5.07	24.42	352	0.04
28	19.96	34.56	5.06	348	20	20.00	34.55	5.07	24.44	350	0.07
49	19.80	34.53	5.03	346	30	19.94	34.56	5.06	24.46	348	0.10
73	18.05	34.26	4.76	324	50	19.77	34.53	5.03	24.48	346	0.17
					75	(17.40)	(34.16)	(4.66)	(24.80)	(316)	(0.26)

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{3} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{3} cm/g	ΔD dyn. m

127.40

STRANGER; January 24, 1958; 0135 GCT; 26°45'N, 114°34'W; sounding, 2000 fm; wind, 320°, force 5; weather, clear; sea, very rough; wire angle, 17°.

0	21.06	34.60	4.95	374	0	21.06	34.60	4.95	24.19	374	0.00
10	21.07	34.60	5.03	374	10	21.07	34.60	5.03	24.19	374	0.04
28	20.68	34.60	5.01	364	20	21.04	34.60	5.03	24.20	373	0.07
56	20.24	34.60	5.07	353	30	20.65	34.60	5.01	24.30	363	0.11
66	20.23	34.60	5.15	352	50	20.32	34.60	5.03	24.39	354	0.18
75	20.20	34.60	5.03	351	75	20.20	34.60	5.03	24.43	351	0.27
89	18.92	34.32	4.85	340	100	16.44	33.95	4.73	24.86	310	0.36
102	15.84	33.88	4.72	302	150	11.75	34.11	2.08	25.96	205	0.48
116	14.22	34.05	2.90	356	200	11.28	34.43	0.90	26.30	173	0.58
133	12.56	33.98	2.73	229	250	10.43	34.48	0.74	26.49	155	0.66
150	11.75	34.11	2.08	205	300	9.97	34.53	0.49	26.61	144	0.74
176	11.36	34.25	1.51	187	400	8.70	34.46	0.33	26.77	129	0.88
197	11.30	34.42	0.92	174	500	7.53	34.42	0.30	26.91	115	1.01
246	10.50	34.47	0.75	157							
321	9.80	34.53	0.39	141							
422	8.33	34.44	0.33	125							
553	7.01	34.42	0.28	109							

127.50

STRANGER; January 23, 1958; 2036 GCT; 26°23'N, 115°07'W; sounding, 2000 fm; wind, 020°, force 4; weather, clear; sea, rough; wire angle, 00°.

0	20.79	34.60	4.90	366	0	20.79	34.60	4.90	24.27	366	0.00
10	20.80	34.60	4.90	367	10	20.80	34.60	4.90	24.26	367	0.04
30	20.74	34.60	4.93	366	20	20.79	34.60	4.92	24.26	367	0.07
58	20.04	34.51	4.97	354	30	20.74	34.60	4.93	24.27	366	0.11
68	19.72	34.50	5.04	347	50	20.30	34.54	4.96	24.36	358	0.18
78	19.10	34.47	4.93	334	75	19.30	34.48	4.99	24.57	338	0.27
92	14.54	33.86	3.99	276	100	13.44	33.91	3.30	25.49	251	0.34
106	12.90	33.94	2.87	238	150	11.50	34.36	1.22	26.21	182	0.45
121	12.15	34.07	2.42	215	200	10.96	34.54	0.70	26.45	159	0.54
139	11.62	34.26	1.50	192	250	10.51	34.62	0.33	26.58	147	0.62
157	11.44	34.39	1.14	179	300	9.90	34.60	0.33	26.67	138	0.69
185	11.04	34.52	0.89	163	400	8.86	34.56	0.30	26.82	124	0.83
207	10.90	34.55	0.59	157	500	7.79	34.52	0.19	26.95	112	0.95
258	10.42	34.62	0.32	145							
336	9.41	34.57	0.38	132							
438	8.54	34.56	0.18	119							
573	6.68	34.43	0.22	103							

127.60

STRANGER; January 23, 1958; 1627 GCT; 26°04'N, 115°45'W; sounding, 2100 fm; wind, 340°, force 3; weather, clear; sea, very rough; wire angle, 04°.

0	21.08	34.58	4.93	376	0	21.08	34.58	4.93	24.17	376	0.00
10	21.09	34.61	5.03	374	10	21.09	34.61	5.03	24.19	374	0.04
30	21.07	34.60	4.97	374	20	21.08	34.61	5.00	24.19	374	0.08
59	19.82	34.61	4.85	341	30	21.07	34.60	4.97	24.19	374	0.11
69	17.59	34.12	4.37	323	50	21.04	34.60	4.97	24.21	372	0.19
78	16.06	33.94	4.30	302	75	16.47	33.99	4.30	24.88	308	0.27
92	14.01	34.02	2.93	255	100	13.09	34.05	2.36	25.66	234	0.34
107	12.80	34.07	2.24	227	150	11.90	34.41	1.10	26.17	186	0.45
121	12.50	34.23	1.68	210	200	11.17	34.53	0.58	26.40	164	0.54
140	12.17	34.38	1.18	192	250	10.42	34.56	0.53	26.56	148	0.62
158	11.72	34.42	1.06	181	300	9.60	34.54	0.46	26.68	137	0.69
185	11.07	34.45	0.90	168	400	8.38	34.50	0.24	26.84	122	0.82
208	11.20	34.57	0.52	161	500	7.29	34.46	0.21	26.97	109	0.95
258	10.26	34.56	0.54	146							
336	9.13	34.52	0.28	131							
440	7.96	34.48	0.24	116							
575	6.42	34.43	0.21	100							

S10

CCOFI 5801

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

127.70 STRANGER; January 23, 1958; 1112 GCT; 25°44'N, 116°25'W, sounding, 2100 fm; wind, 360°, force 5; weather, clear; sea, very rough; wire angle, 12°.

0	18.01	33.95	5.42	346	0	18.01	33.95	5.42	24.48	346	0.00
9	18.02	33.93	5.43	348	10	18.02	33.93	5.44	24.46	348	0.03
28	18.00	33.94	5.44	346	20	18.01	33.93	5.44	24.47	347	0.07
57	18.46	34.23	5.34	335	30	18.00	33.95	5.44	24.48	346	0.10
67	18.66	34.27	5.30	337	50	18.15	34.07	5.41	24.54	340	0.17
76	18.72	34.33	5.34	335	75	18.71	34.33	5.33	24.60	335	0.26
91	15.27	33.68	5.62	304	100	14.48	33.68	5.64	25.09	288	0.34
105	14.10	33.69	5.67	280	150	10.63	33.55	4.70	25.73	227	0.46
117	12.90	33.64	5.07	260	200	9.46	33.96	2.97	26.25	178	0.57
136	11.59	33.55	5.08	243	250	8.34	34.06	2.70	26.50	154	0.65
153	10.50	33.55	4.61	225	300	7.87	34.15	2.01	26.65	140	0.73
179	10.11	33.88	3.10	194	400	6.88	34.26	0.96	26.87	119	0.86
200	9.46	33.96	2.97	178	500	6.20	34.34	0.50	27.03	104	0.98
248	8.37	34.05	2.71	155							
324	7.64	34.20	1.55	133							
423	6.62	34.27	0.82	115							
556	5.97	34.40	0.30	97							

130.30 STRANGER; January 22, 1958; 1141 GCT; 26°28.5'N, 113°30'W; sounding, 45 fm; wind, 320°, force 5; weather, partly cloudy; sea, very rough; wire angle, 00°.

0	20.56	34.72	4.98	352	0	20.56	34.72	4.98	24.42	352	0.00
10	20.60	34.72	4.94	353	10	20.60	34.72	4.94	24.41	353	0.04
30	20.60	34.72	4.88	353	20	20.60	34.72	4.92	24.41	353	0.07
49	20.58	34.71	4.91	353	30	20.60	34.72	4.88	24.41	353	0.10
73	18.70	34.40	3.71	329	50	20.58	34.71	4.90	24.41	353	0.17
					75	(18.30)	(34.35)	(3.40)	(24.72)	(324)	(0.26)

130.35 STRANGER; January 22, 1958; 1425 GCT; 26°19'N, 113°49'W; sounding, 340 fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 02°.

0	21.54	34.63	4.85	384	0	21.54	34.63	4.85	24.08	384	0.00
10	21.54	34.65	4.92	382	10	21.54	34.65	4.92	24.10	382	0.04
30	21.56	34.64	4.99	384	20	21.55	34.65	4.96	24.09	383	0.08
59	18.82	34.17	4.70	349	30	21.56	34.64	4.99	24.08	384	0.11
69	17.54	34.03	4.80	328	50	21.28	34.58	4.97	24.12	381	0.19
79	16.52	33.94	4.78	312	75	17.00	33.98	4.80	24.76	320	0.28
93	14.54	33.91	3.81	372	100	13.47	33.97	3.07	25.52	247	0.35
107	12.90	34.02	2.56	233	150	12.40	34.43	0.91	26.08	194	0.46
121	12.70	34.21	1.73	215	200	11.61	34.57	0.58	26.35	168	0.55
140	12.34	34.33	1.25	200	250	10.88	34.60	0.40	26.50	154	0.64
158	12.44	34.51	0.62	189	300	10.26	34.60	0.31	26.61	144	0.71
184	11.80	34.55	0.64	173	400	9.06	34.56	0.26	26.78	127	0.85
208	11.50	34.58	0.55	166	500	7.79	34.49	0.25	26.94	113	0.98
257	10.78	34.60	0.39	152							
334	9.88	34.59	0.27	138							
436	8.60	34.54	0.26	122							
566	7.00	34.45	0.25	106							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

STRANGER; January 22, 1958; 1741 GCT; 26°10'N, 114°07'W; sounding, 1300 fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 10°. 13040

0	21.46	34.67	4.76	380	0	21.46	34.67	4.76	24.13	380	0.00
10	21.22	34.63	4.76	376	10	21.22	34.63	4.76	24.16	376	0.04
29	21.42	34.62	4.87	382	20	21.34	34.62	4.78	24.14	379	0.08
58	20.82	34.56	4.97	371	30	21.42	34.61	4.90	24.10	382	0.11
67	20.41	34.59	4.80	357	50	21.01	34.57	4.96	24.18	375	0.19
77	20.34	34.60	4.90	355	75	20.37	34.60	4.88	24.38	356	0.28
91	16.58	33.96	4.53	312	100	14.80	33.82	4.31	25.12	285	0.36
105	14.02	33.78	4.15	272	150	11.88	34.18	1.77	25.98	203	0.48
119	12.93	33.91	3.03	242	200	11.30	34.52	0.75	26.36	167	0.58
137	12.52	34.14	2.01	217	250	10.80	34.60	0.50	26.52	153	0.66
155	11.72	34.18	1.70	199	300	10.08	34.58	0.40	26.63	142	0.74
183	11.28	34.43	0.98	173	400	8.70	34.50	0.35	26.79	126	0.88
205	11.32	34.54	0.70	165	500	7.51	34.45	0.30	26.94	113	1.00
255	10.72	34.60	0.50	151							
332	9.61	34.56	0.35	136							
433	8.25	34.47	0.36	122							
567	6.91	34.45	0.20	105							

STRANGER; January 22, 1958; 2230 GCT; 25°51'N, 114°45'W; sounding, 1950 fm; wind, 310°, force 6; weather, cloudy; sea, very rough; wire angle, 13°. 130.50

0	20.52	34.60	4.99	359	0	20.52	34.60	4.99	24.35	359	0.00
9	20.53	34.59	5.02	360	10	20.53	34.59	5.02	24.34	360	0.04
28	20.52	34.60	4.99	359	20	20.53	34.60	5.01	24.35	359	0.07
57	20.46	34.56	4.87	360	30	20.52	34.60	4.94	24.35	359	0.11
67	20.02	34.45	4.97	358	50	20.50	34.57	4.90	24.34	360	0.18
76	17.54	34.09	4.49	324	75	17.78	34.11	4.52	24.65	329	0.26
90	14.65	34.09	2.76	262	100	13.40	34.01	2.60	25.57	242	0.34
104	13.14	34.00	2.57	238	150	11.78	34.28	1.36	26.10	192	0.45
117	12.80	34.17	1.84	220	200	11.15	34.54	0.71	26.41	163	0.54
135	11.82	34.24	1.50	192	250	10.37	34.52	0.70	26.54	151	0.62
154	11.76	34.40	0.72	183	300	9.79	34.52	0.51	26.64	141	0.69
181	11.37	34.52	-	167	400	8.50	34.50	0.31	26.83	123	0.83
203	11.10	34.54	0.71	162	500	7.30	34.47	0.29	26.98	108	0.95
251	10.36	34.52	0.70	150							
327	9.52	34.52	0.43	137							
427	8.10	34.49	0.29	118							
558	6.68	34.46	0.29	101							

STRANGER; January 23, 1958; 0402 GCT; 25°32'N, 115°24'W; sounding, 2100 fm; wind, 320°, force 6; weather, cloudy; sea, very rough; wire angle, 22°. 130.60

0	20.50	34.56	4.93	362	0	20.50	34.56	4.93	24.31	362	0.00
9	20.52	34.56	5.08	363	10	20.52	34.56	5.08	24.31	363	0.04
32	20.46	34.58	5.03	360	20	20.50	34.57	5.05	24.32	362	0.07
59	16.78	34.04	4.30	311	30	20.47	34.58	5.03	24.33	360	0.11
68	14.49	33.87	3.69	274	50	19.60	34.46	4.78	24.47	347	0.18
81	13.32	33.95	2.87	245	75	13.85	33.90	3.29	25.39	260	0.26
90	12.91	34.09	2.33	228	100	12.55	34.18	1.92	25.87	214	0.32
108	12.36	34.23	1.62	207	150	11.91	34.49	0.90	26.23	180	0.42
120	12.31	34.31	1.26	200	200	11.05	34.55	0.70	26.43	161	0.50
137	12.15	34.43	1.07	188	250	10.24	34.53	0.55	26.56	148	0.58
157	11.79	34.51	0.79	176	300	9.66	34.54	0.45	26.67	138	0.66
181	11.35	34.53	0.71	166	400	8.18	34.46	0.34	26.84	122	0.79
205	10.98	34.55	0.69	159	500	6.89	34.42	0.27	27.00	107	0.81
254	10.17	34.53	0.51	147							
330	9.34	34.54	0.40	133							
429	7.66	34.42	0.31	117							
567	6.26	34.43	0.24	98							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 -5 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 -5 10 cm/g	ΔD dyn. m

133.25 STRANGER; January 22, 1958; 0705 GCT; 26°09'N, 112°51'W; sounding, 43 fm; wind, 340°, force 5; weather, clear; sea, very rough; wire angle, 00°.

0	20.40	34.72	4.94	348	0	20.40	34.72	4.94	24.46	348	0.00
10	20.44	34.72	4.80	249	10	20.44	34.72	4.80	24.45	349	0.03
29	20.43	34.72	4.93	349	20	20.44	34.72	4.80	24.45	349	0.07
49	20.44	34.70	4.80	351	30	20.43	34.72	4.93	24.44	350	0.10
60	20.44	34.72	4.86	350	50	20.44	34.70	4.80	24.43	351	0.17

133.30 STRANGER; January 22, 1958; 0423 GCT; 25°59'N, 113°10'W; sounding, 95 fm; wind, 320°, force 6; weather, clear; sea, very rough; wire angle, 08°.

0	20.70	34.60	5.00	364	0	20.70	34.60	5.00	24.29	364	0.00
10	20.72	34.63	5.03	363	10	20.72	34.63	5.03	24.30	363	0.04
29	20.74	34.60	4.99	365	20	20.73	34.62	5.01	24.29	364	0.07
47	20.42	34.61	4.90	357	30	20.73	34.60	4.96	24.28	365	0.11
72	18.21	34.66	3.63	299	50	20.37	34.61	4.90	24.39	355	0.18
96	14.38	34.33	3.04	239	75	17.64	34.63	3.46	25.09	288	0.26
119	13.74	34.44	1.02	218	100	14.03	34.32	2.98	25.67	233	0.33
147	13.10	34.53	0.40	199	150	(13.02)	(34.54)	(0.35)	(26.05)	(197)	(0.44)

133.40 STRANGER; January 21, 1958; 2323 GCT; 25°39'N, 113°48.5'W; sounding, 1750 fm; wind, 310°, force 4; weather, partly cloudy; sea, rough; wire angle, 03°.

0	21.86	34.61	4.73	394	0	21.86	34.61	4.73	23.98	394	0.00
10	21.86	34.61	4.91	394	10	21.86	34.61	4.91	23.98	394	0.04
29	21.64	34.60	4.87	389	20	21.79	34.61	4.89	24.00	392	0.08
39	21.27	34.54	4.81	383	30	21.61	34.60	4.86	24.04	388	0.12
49	20.91	34.51	4.83	376	50	20.90	34.51	4.85	24.17	376	0.19
58	20.62	34.53	5.02	367	75	18.73	34.20	4.64	24.50	344	0.28
69	19.81	34.34	4.85	361	100	14.20	33.90	3.62	25.32	266	0.36
82	16.29	33.96	4.33	306	150	12.09	34.37	1.13	26.11	191	0.48
96	14.44	33.87	3.91	274	200	10.93	34.52	0.78	26.44	160	0.56
111	13.71	34.14	2.21	239	250	10.60	34.59	0.42	26.55	149	0.64
135	12.84	34.42	1.03	202	300	9.82	34.55	0.33	26.65	140	0.72
161	11.54	34.34	1.18	184	400	8.75	34.52	0.29	26.81	125	0.86
193	11.00	34.51	0.80	162	500	7.56	34.48	0.25	26.96	111	0.98
239	10.76	34.60	0.46	152							
312	9.64	34.54	0.31	138							
406	8.72	34.52	0.29	125							
530	7.18	34.47	0.24	107							

133.50 STRANGER; January 21, 1958; 1847 GCT; 25°19'N, 114°26'W; sounding, 1400 fm; wind, 360°, force 4; weather, cloudy; sea, rough; wire angle, 06°.

0	20.46	34.52	4.59	364	0	20.46	34.52	4.59	24.29	364	0.00
10	20.48	34.50	4.67	366	10	20.48	34.50	4.67	24.27	366	0.04
29	20.15	34.52	4.67	356	20	20.30	34.51	4.67	24.32	361	0.07
53	20.05	34.52	4.85	354	30	20.14	34.52	4.69	24.38	356	0.11
63	17.84	34.22	4.61	322	50	20.06	34.52	4.83	24.40	354	0.18
72	15.10	33.92	3.89	284	75	14.54	33.89	3.76	25.24	274	0.26
82	13.92	33.86	3.65	264	100	12.10	33.77	3.41	25.62	238	0.32
95	12.54	33.78	3.43	243	150	11.40	34.34	1.30	26.21	182	0.43
109	11.80	33.77	3.39	231	200	10.73	34.46	0.80	26.42	162	0.52
128	11.50	33.98	2.46	210	250	10.10	34.51	0.52	26.56	148	0.60
146	11.41	34.30	1.39	185	300	9.68	34.55	0.21	26.68	138	0.67
169	11.00	34.38	1.21	172	400	8.77	34.55	0.21	26.83	123	0.81
191	10.79	34.43	0.88	164	500	7.70	34.49	0.20	26.94	113	0.93
237	10.25	34.49	0.63	151							
311	9.60	34.56	0.20	135							
404	8.75	34.55	0.21	123							
529	7.34	34.46	0.20	110							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
STRANGER; January 21, 1958; 1355 GCT; 24°57'N, 115°03'W; sounding, 2100 fm; wind, 340°, force 4; weather, partly cloudy; sea, rough; wire angle, 04°.											133.60
0	20.38	34.51	4.94	362	0	20.38	34.51	4.94	24.31	362	0.00
10	20.40	34.52	5.12	363	10	20.40	34.52	5.12	24.30	363	0.04
30	20.05	34.51	5.16	354	20	20.29	34.52	5.14	24.33	360	0.07
54	17.00	34.04	4.68	316	30	20.05	34.51	5.16	24.40	354	0.11
63	14.79	33.85	4.09	282	50	19.20	34.40	5.08	24.54	341	0.18
73	13.97	33.96	3.01	257	75	13.82	33.97	2.95	25.44	255	0.25
83	13.22	33.99	2.66	241	100	12.43	34.08	2.20	25.81	220	0.31
97	12.58	34.07	2.27	222	150	11.50	34.43	0.96	26.26	175	0.41
111	11.90	34.14	1.91	205	200	11.18	34.60	0.48	26.46	158	0.50
129	12.04	34.34	1.15	193	250	10.11	34.55	0.54	26.60	145	0.58
148	11.52	34.43	0.99	177	300	9.36	34.50	0.42	26.69	136	0.65
171	11.22	34.49	0.75	168	400	8.02	34.47	0.30	26.88	118	0.78
195	11.21	34.60	0.48	160	500	7.06	34.44	0.25	26.99	108	0.90
239	10.36	34.56	0.55	147							
314	9.16	34.49	0.39	133							
407	7.94	34.47	0.30	117							
531	6.83	34.43	0.25	106							
STRANGER; January 20, 1958; 1423 GCT; 25°34'N, 112°19'W; sounding, 40 fm; wind, 090°, force 1; weather, partly cloudy; sea, rough; wire angle, 00°.											137.23
0	21.18	34.72	4.87	368	0	21.18	34.72	4.87	24.25	368	0.00
9	21.19	34.74	4.92	366	10	21.18	34.74	4.91	24.27	366	0.04
29	20.88	34.68	4.85	364	20	21.00	34.69	4.86	24.29	365	0.07
48	20.83	34.70	4.86	361	30	20.88	34.68	4.85	24.30	363	0.11
STRANGER; January 20, 1958; 1745 GCT; 25°19'N, 112°46'W; sounding, 180 fm; wind, 020°, force 2; weather, partly cloudy; sea, rough; wire angle, 00°.											137.30
0	21.23	34.61		377	0	21.23	34.61		24.15	377	0.00
10	21.22	34.63		376	10	21.22	34.63		24.17	376	0.04
27	21.20	34.60		379	20	21.21	34.61		24.15	377	0.08
49	20.88	34.60		369	30	21.18	34.60		24.16	377	0.11
73	18.86	34.36		336	50	20.86	34.60		24.24	368	0.19
96	15.80	34.38		265	75	18.70	34.36		24.62	332	0.28
119	14.09	34.38		229	100	15.40	34.38		25.43	256	0.35
155	12.19	34.56		179	150	12.39	34.53		26.17	185	0.46
191	11.60	34.65		163	200	11.51	34.65		26.43	161	0.55
235	11.20	34.65		155	250	11.10	34.65		26.50	154	0.63
282	10.94	34.65		151							
STRANGER; January 20, 1958; 2035 GCT; 25°10'N, 113°04'W; sounding, 800 fm; wind, 020°, force 3; weather, partly cloudy; sea, rough; wire angle, 02°.											137.35
0	21.58	34.66	4.90	383	0	21.58	34.66	4.90	24.10	383	0.00
10	21.39	34.67	4.97	377	10	21.39	34.67	4.97	24.16	377	0.04
30	20.72	34.56	4.76	368	20	21.10	34.63	4.91	24.20	372	0.08
39	20.04	34.40	4.38	363	30	20.72	34.56	4.76	24.25	368	0.11
48	18.84	34.24	4.02	344	50	18.75	34.24	4.00	24.52	343	0.18
58	18.32	34.22	3.85	333	75	16.50	34.09	3.69	24.94	303	0.26
67	17.63	34.08	4.03	327	100	15.05	34.22	2.40	25.38	261	0.34
81	15.84	34.11	3.36	285	150	12.37	34.45	1.01	26.10	192	0.45
95	15.37	34.23	2.41	266	200	11.10	34.49	0.83	26.38	166	0.54
110	13.90	34.15	2.35	242	250	11.02	34.66	0.27	26.53	152	0.62
132	12.92	34.36	1.21	208	300	10.46	34.64	0.25	26.61	144	0.70
160	12.10	34.48	0.93	184	400	9.15	34.58	0.30	26.78	128	0.84
192	11.32	34.49	0.84	169	500	7.84	34.46	0.26	26.87	117	0.97
237	11.10	34.66	0.29	153							
311	10.32	34.63	0.25	142							
405	9.06	34.57	0.30	127							
531	7.42	34.42	0.25	114							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

137.40 STRANGER; January 20, 1958; 2330 GCT; 24°57'N, 113°29'W; sounding, 2000 fm; wind, 030°, force 3; weather, partly cloudy; sea, moderate; wire angle, 00°.

0	22.18	34.60	4.87	403	0	22.18	34.60	4.87	23.88	403	0.00
10	22.20	34.61a)	4.81	403	10	22.20	34.61	4.81	23.88	403	0.04
29	22.12	34.60	4.90	402	20	22.16	34.60	4.86	23.89	402	0.08
59	22.10	34.60	4.80	401	30	22.12	34.60	4.90	23.90	402	0.12
68	21.29	34.58	4.58	381	50	22.11	34.60	4.86	23.90	402	0.20
78	18.00	34.21	3.85	327	75	19.30	34.35	4.12	24.47	347	0.29
92	16.02	34.14a)	3.09	287	100	14.85	34.06	2.98	25.30	268	0.37
106	14.16	34.02	2.93	257	150	12.50	34.57	0.86	26.18	185	0.49
120	13.65	34.21	1.80	233	200	11.70	34.61	0.29	26.36	168	0.58
138	12.87	34.38	1.11	206	250	11.08	34.61	0.23	26.48	156	0.66
156	12.36	34.63	0.70	177	300	10.33	34.58	0.18	26.59	146	0.74
183	11.91	34.60	0.33	172	400	8.92	34.58	0.20	26.82	124	0.88
207	11.60	34.61	0.28	166	500	7.68	34.52	0.23	26.96	110	1.00
256	10.98	34.61	0.22	155							
335	9.82	34.57	0.16	139							
437	8.42	34.58b)	0.21	117							
570	6.88	34.43b)	0.25	106							

137.50 STRANGER; January 21, 1958; 0400 GCT; 24°41'N, 114°03'W; sounding, 1995 fm; wind, 360°, force 3; weather, partly cloudy; sea, rough; wire angle, 03°.

0	22.31	34.53	4.99	411	0	22.31	34.53	4.99	23.80	411	0.00
10	22.36	34.53	4.87	413	10	22.36	34.53	4.87	23.78	413	0.04
29	22.10	34.47	5.05	411	20	22.25	34.50	4.99	23.79	412	0.08
54	21.70	34.45	4.89	401	30	22.07	34.47	5.05	23.81	410	0.12
64	20.12	34.27	4.78	373	50	21.79	34.45	4.92	23.88	403	0.20
73	17.94	34.07	4.31	335	75	17.72	34.06	4.28	24.63	332	0.30
83	16.60	34.03	3.89	308	100	14.75	34.01	3.06	25.28	270	0.37
97	15.10	34.00	3.26	278	150	12.68	34.47	0.84	26.06	196	0.49
111	13.62	34.05	2.44	245	200	11.65	34.59	0.42	26.36	168	0.58
129	12.34	34.08	2.14	218	250	11.10	34.65	0.29	26.51	153	0.66
148	12.72	34.47	0.89	196	300	10.14	34.58	0.27	26.62	142	0.74
170	11.84	34.47	0.80	180	400	8.88	34.53	0.21	26.79	126	0.88
192	11.72	34.58	0.48	169	500	7.61	34.46	0.24	26.93	112	1.01
237	11.28	34.66	0.30	156							
311	9.94	34.57	0.27	140							
404	8.82	34.53	0.21	126							
529	7.22	34.44	0.27	111							

137.60 STRANGER; January 21, 1958; 0902 GCT; 24°23'N, 114°40'W; sounding, 2000 fm; wind, 340°, force 2; weather, clear; sea, rough; wire angle, 02°.

0	22.71	34.58b)	4.78	419	0	22.71	34.58	4.78	23.22	419	0.00
10	22.71	34.59	4.84	418	10	22.71	34.59	4.84	23.73	418	0.04
29	22.30	34.56	4.80	409	20	22.53	34.58	4.82	23.77	414	0.08
53	21.54	34.40	4.70	400	30	22.29	34.56	4.80	23.82	409	0.12
63	19.89	34.40b)	4.68	359	50	21.77	34.45	4.73	23.88	403	0.20
73	17.96	34.22	4.43	325	75	17.35	34.15	4.24	24.81	315	0.30
83	16.28	34.04	3.80	300	100	14.13	34.13	2.41	25.51	248	0.37
96	14.46	34.11	2.57	257	150	12.43	34.53	0.60	26.16	186	0.48
110	13.60	34.15	2.16	236	200	11.23	34.61	0.44	26.45	159	0.56
130	12.82	34.40	1.13	203	250	10.60	34.59	0.34	26.56	149	0.64
148	12.46	34.53	0.61	187	300	9.88	34.57	0.31	26.66	140	0.72
171	11.88	34.58	0.52	173	400	8.66	34.51	0.24	26.81	125	0.86
193	11.38	34.61	0.47	161	500	7.49	34.48	0.20	26.96	110	0.98
238	10.72	34.60	0.35	151							
312	9.73	34.56	0.30	137							
405	8.60	34.51	0.24	124							
529	7.09	34.48	0.20	105							

a) Possible evaporation; value falls on property curve.
b) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
STRANGER; January 20, 1958; 0917 GCT; 24°49'N, 112°29'W; sounding, 65 fm; wind, 360°, force 3; weather, clear; sea, rough; wire angle, 00°.											140.30
0	21.98	34.72	4.83	389	0	21.98	34.72	4.83	24.03	389	0.00
10	21.98	34.70	4.94	390	10	21.98	34.70	4.94	24.02	390	0.04
29	21.88	34.72	4.90	387	20	21.94	34.71	4.92	24.03	389	0.08
49	21.55	34.70	4.67	379	30	21.87	34.72	4.89	24.06	386	0.12
73	17.56	34.20	3.76	317	50	21.54	34.70	4.64	24.14	378	0.19
97	16.10	34.35	2.31	273	75	17.40	34.20	3.69	24.83	313	0.28
					100	(15.98)	(34.37)	(2.13)	(25.29)	(269)	(0.35)
STRANGER; January 20, 1958; 0703 GCT; 24°41'N, 112°47'W; sounding, 390 fm; wind, 300°, force 3; weather, partly cloudy; sea, rough; wire angle, 06°.											140.35
0	21.84	34.66	4.81	390	0	21.84	34.66	4.81	24.02	390	0.00
10	21.84	34.64	4.84	392	10	21.84	34.64	4.84	24.00	392	0.04
29	21.09	34.62	4.92	373	20	21.50	34.63	4.90	24.09	383	0.08
39	20.94	34.62	4.91	369	30	21.08	34.62	4.92	24.20	373	0.12
48	20.88	34.62	4.94	370	50	20.85	34.62	4.94	24.27	366	0.19
58	20.67	34.61	4.62	363	75	18.63	34.30	4.01	24.60	335	0.28
67	19.46	34.39	4.31	349	100	15.75	34.20	2.88	25.21	277	0.36
82	18.04	34.25	3.79	325	150	13.17	34.45	0.94	25.95	206	0.48
96	16.08	34.22	2.98	283	200	11.82	34.52	0.71	26.27	176	0.58
110	15.00	34.13	2.67	267	250	11.48	34.68	0.28	26.46	158	0.66
133	13.92	34.40	1.16	224	300	10.09	34.61	0.30	26.66	139	0.74
160	12.76	34.47	0.85	197	400	8.63	34.54	0.25	26.84	122	0.87
191	11.86	34.51	0.75	177	500	7.58	34.48	0.22	26.95	112	1.00
237	11.74	34.69	0.28	161							
309	9.82	34.60	0.30	138							
402	8.62	34.70r	0.25								
529	7.34	34.47	0.21	109							
STRANGER; January 20, 1958; 0323 GCT; 24°29'N, 113°11'W; sounding, 1850 fm; wind, 310°, force 3; weather, partly cloudy; sea, very rough; wire angle, 06°.											140.40
0	21.50	34.67		380	0	21.50	34.67		24.12	380	0.00
10	21.50	34.66		381	10	21.50	34.66		24.11	381	0.04
29	21.16	34.59		377	20	21.36	34.62		24.12	380	0.08
39	20.89	34.58		371	30	21.15	34.59		24.16	376	0.11
49	20.24	34.43		365	50	20.23	34.43		24.29	364	0.19
58	19.86	34.43		355	75	17.45	34.15		24.78	318	0.27
68	18.31	34.22		333	100	14.98	33.99		25.22	276	0.35
82	16.80	34.11		306	150	12.23	34.33		26.05	197	0.47
96	15.40	33.98		286	200	11.81	34.58		26.32	171	0.56
110	14.17	34.03		256	250	10.99	34.60		26.49	155	0.64
134	12.66	34.25		211	300	10.52	34.63		26.59	146	0.72
160	12.02	34.38		190	400	9.11	34.52		26.74	131	0.87
193	11.87	34.57		173	500	7.98	34.45		26.88	118	1.00
237	11.17	34.59		159							
310	10.42	34.63		144							
403	9.06	34.52		130							
526	7.68	34.46		115							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

140.50 STRANGER; January 19, 1958; 2210 GCT; 24°07'N, 113°41'W; sounding, 1750 fm; wind, 310°, force 3; weather, partly cloudy; sea, high; wire angle, 00°.

0	22.32	34.70	4.77	401	0	22.32	34.70	4.77	23.90	401	0.00
10	22.28	34.70	4.81	399	10	22.28	34.70	4.81	23.92	399	0.04
30	22.17	34.72	4.80	393	20	22.23	34.71	4.80	23.96	396	0.08
59	22.16	34.70	4.75	395	30	22.17	34.72	4.80	23.98	393	0.12
69	22.18	34.72	4.76	398	50	22.16	34.71	4.75	23.98	394	0.20
78	22.14	34.70	4.84	394	75	22.17	34.71	4.80	23.98	394	0.30
92	20.25	34.42	4.11	366	100	17.72	34.14	3.90	24.70	325	0.39
107	16.54	34.04	3.83	305	150	12.01	34.23	1.57	26.01	201	0.52
122	14.65	34.12	2.60	260	200	11.16	34.51	0.69	26.39	165	0.61
140	12.32	34.16	1.93	212	250	10.67	34.61	0.38	26.55	149	0.69
158	11.85	34.30	1.35	193	300	10.00	34.62	0.31	26.67	138	0.77
186	11.36	34.47	0.84	171	400	8.72	34.56	0.27	26.84	122	0.90
208	11.04	34.53	0.59	162	500	7.71	34.54	0.21	26.98	109	1.02
258	10.60	34.63	0.36	147							
336	9.50	34.60	0.30	131							
440	8.27	34.54	0.25	117							
573	7.06	34.54	0.16	100							

140.60 STRANGER; January 19, 1958; 1758 GCT; 23°46'N, 114°16'W; sounding, 2000 fm; wind, 310°, force 3; weather, partly cloudy; sea, high; wire angle, 02°.

0	22.50	34.57	4.58	414	0	22.50	34.57	4.58	23.77	414	0.00
10	22.47	34.53	4.74	416	10	22.47	34.53	4.74	23.75	416	0.04
29	22.30	34.52	4.78	412	20	22.41	34.53	4.75	23.77	414	0.08
59	19.82	34.16	4.90	374	30	22.30	34.52	4.77	23.79	412	0.12
68	17.78	34.02	4.55	335	50	21.00	34.33	4.86	24.01	391	0.20
78	16.44	33.94	4.32	311	75	16.86	33.96	4.42	24.77	319	0.29
92	15.26	33.97	3.50	283	100	14.22	33.93	3.18	25.34	265	0.37
106	13.44	33.90	2.99	252	150	12.01	34.39	1.00	26.14	189	0.48
121	12.78	34.07	2.26	226	200	11.63	34.63	0.45	26.39	165	0.57
139	11.96	34.13	1.78	207	250	11.03	34.66	0.27	26.52	152	0.65
157	12.02	34.50	0.71	182	300	10.37	34.64	0.21	26.63	142	0.73
185	11.90	34.60	0.52	171	400	8.88	34.58	0.29	26.83	123	0.87
207	11.52	34.64	0.41	162	500	7.50	34.51	0.30	26.98	108	0.99
257	10.98	34.66	0.23	150							
335	9.84	34.62	0.20	135							
439	8.28	34.55	0.32	116							
572	6.66	34.47a)	0.24	100							

143.26 STRANGER; January 18, 1958; 1741 GCT; 24°19'N, 111°48'W; sounding, 40 fm; wind, calm; weather, partly cloudy; sea, rough; wire angle, 00°.

0	22.54	34.70		406	0	22.54	34.70		23.85	406	0.00
10	22.54	34.69		406	10	22.54	34.69		23.85	406	0.04
29	22.44	34.72		402	20	22.50	34.71		23.87	404	0.08
49	22.02	34.69		393	30	22.43	34.72		23.90	401	0.12
73	19.84	34.49		350	50	21.98	34.68		24.00	392	0.20
					75	(19.62)	(34.47)		(24.48)	(346)	(0.29)

143.30 STRANGER; January 18, 1958; 1956 GCT; 24°11'N, 112°03'W; sounding, 120 fm; wind, 250°, force 3; weather, partly cloudy; sea, very rough; wire angle, 00°.

0	22.43	34.58	4.79	412	0	22.43	34.58	4.79	23.80	412	0.00
10	22.23	34.64	4.82	402	10	22.23	34.64	4.82	23.90	402	0.04
29	21.98	34.69	4.79	391	20	22.10	34.67	4.81	23.96	396	0.08
49	21.26	34.86	4.67	360	30	21.97	34.69	4.78	24.02	390	0.12
73	16.68	34.13	3.44	302	50	21.21	34.86	4.66	24.34	359	0.19
97	14.90	34.25	2.12	255	75	16.58	34.13	3.40	24.97	300	0.28
120	13.72	34.38	1.29	222	100	14.73	34.27	2.00	25.49	250	0.35
157	12.74	34.54	0.61	191	150	12.87	34.51	0.73	26.06	196	0.46
195	12.24	34.61	0.45	177	200	(12.21)	(34.62)	(0.44)	(26.27)	(176)	(0.55)

a) Possible evaporation; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	ΔD dyn. m

STRANGER; January 18, 1958; 2258, 2325 GCT; 24°01'N, 112°22'W; sounding, 1400 fm; wind, 290°, force 4; weather, cloudy; sea, very rough; wire angle, 24°, 35°. 143.35

0	22.28	34.60	4.79	406	0	22.28	34.60	4.79	23.85	406	0.00
8	22.16	34.64	4.94	400	10	22.13	34.64	4.94	23.93	399	0.04
27	21.96	34.67	4.94	392	20	22.02	34.66	4.94	23.97	395	0.08
54	21.84	34.69	4.97	388	30	21.95	34.67	4.95	24.01	391	0.12
62	21.72	34.65	4.85	387	50	21.86	34.69	4.96	24.03	389	0.20
71	21.48	34.67	4.87	380	75	21.37	34.66	4.85	24.15	377	0.29
83	20.66	34.52	4.54	370	100	16.48	34.14	3.56	25.00	297	0.38
94	18.26	34.23	4.21	331	150	12.99	34.44	1.01	25.99	203	0.50
106	15.32	34.10	2.92	275	200	11.86	34.60	0.42	26.33	170	0.60
121	13.82	34.22	2.02	236	250	11.31	34.62	0.32	26.44	160	0.68
137	13.28	34.34	1.45	216	300	10.58	34.61	0.30	26.56	148	0.76
161	12.72	34.51	0.73	193	400	9.02	34.54	0.25	26.78	128	0.90
180	12.06	34.57	0.56	177	500	7.81	34.51	0.25	26.94	113	1.03
224	11.63	34.62	0.35	166							
294	10.64	34.61	0.30	149							
379	9.32	34.55	0.26	132							
504	7.74	34.51	0.25	111							

STRANGER; January 19, 1958; 0212 GCT; 23°51'N, 112°47'W; sounding, 1700 fm; wind, 230°, force 2; weather, partly cloudy; sea, very rough; wire angle, 05°. 143.40

0	23.12	34.62	4.78	427	0	23.12	34.62	4.78	23.63	427	0.00
10	23.12	34.61	4.89	428	10	23.12	34.61	4.89	23.62	428	0.04
29	23.12	34.61	4.85	428	20	23.12	34.61	4.87	23.62	428	0.08
58	22.98	34.61	4.87	423	30	23.11	34.61	4.85	23.63	427	0.13
67	22.02	34.44	4.93	411	50	23.04	34.61	4.86	23.64	426	0.21
77	20.90	34.36	4.83	387	75	21.10	34.37	4.85	24.01	391	0.32
91	17.52	34.11	3.86	322	100	15.96	34.08	3.29	25.06	290	0.40
104	15.44	34.08	3.09	280	150	12.69	34.32	1.40	25.95	206	0.52
118	13.78	34.18	2.07	237	200	11.90	34.65	0.35	26.36	168	0.62
136	12.84	34.20	1.81	218	250	11.21	34.68	0.17	26.51	153	0.70
154	12.62	34.41	1.16	199	300	10.42	34.65	0.16	26.63	142	0.78
181	12.23	34.60	0.46	178	400	8.90	34.55	0.17	26.81	125	0.92
203	11.84	34.66	0.34	166	500	7.67	34.51	0.24	26.95	111	1.04
253	11.19	34.68	0.17	153							
330	9.92	34.62	0.16	126							
435	8.42	34.53	0.19	120							
566	6.95	34.49	0.31	102							

STRANGER; January 19, 1958; 0702 GCT; 23°31'N, 113°15'W; sounding, 1900 fm; wind, 270°, force 2; weather, partly cloudy; sea, very rough; wire angle, 03°. 143.50

0	23.32	34.67		429	0	23.32	34.67		23.61	429	0.00
10	23.32	34.65		431	10	23.32	34.65		23.59	431	0.04
29	23.33	34.65		431	20	23.32	34.65		23.59	431	0.08
59	23.23	34.68		426	30	23.33	34.65		23.59	431	0.13
68	20.72	34.35		383	50	23.33	34.65		23.59	431	0.21
78	17.63	34.05		330	75	18.29	34.11		24.54	340	0.31
92	15.38	33.96		286	100	14.00	34.97		25.40	258	0.39
107	13.26	33.98		242	150	11.97	34.38		26.13	189	0.50
120	12.52	34.16		215	200	11.56	34.66		26.43	161	0.59
139	12.14	34.34		195	250	10.82	34.64		26.55	150	0.67
157	11.86	34.42		184	300	10.03	34.61		26.66	139	0.74
185	11.62	34.56		170	400	8.78	34.57		26.84	122	0.88
207	11.56	34.67		160	500	7.80	34.54		26.97	110	1.00
258	10.66	34.63		148							
336	9.53	34.60		131							
441	8.34	34.55		117							
573	7.16	34.53		102							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

143.60 STRANGER; January 19, 1958; 1235 GCT; 23°13'N, 113°51'W; sounding, 2000 fm; wind, 310°, force 4; weather, partly cloudy; sea, very rough; wire angle, 00°.

0	22.76	34.35	4.62	436	0	22.76	34.35	4.62	23.54	436	0.00
10	22.77	34.34	4.84	437	10	22.77	34.34	4.84	23.53	437	0.04
30	22.76	34.34	4.84	437	20	22.76	34.34	4.84	23.53	437	0.09
59	22.40	34.52	4.43	415	30	22.76	34.34	4.84	23.53	437	0.13
68	21.08	34.42	3.84	387	50	22.70	34.35	4.84	23.55	435	0.22
78	19.55	34.36	3.40	352	75	20.20	34.38	3.56	24.26	367	0.32
92	17.52	34.30	2.95	309	100	16.65	34.35	2.48	25.12	286	0.40
106	16.09	34.38a)	2.11	271	150	13.20	34.54	0.78	26.02	200	0.52
120	14.93	34.45	1.39	241	200	12.10	34.68	0.35	26.34	169	0.62
139	13.84	34.54	0.89	213	250	11.42	34.68	0.18	26.47	157	0.70
157	12.88	34.54	0.73	194	300	10.69	34.66	0.18	26.58	146	0.78
184	12.34	34.65	0.51	176	400	9.35	34.61	0.30	26.77	128	0.92
207	12.00	34.69	0.30	167	500	8.21	34.56	0.31	26.91	115	1.05
257	11.37	34.68	0.16	156							
337	10.14	34.64	0.20	139							
441	8.88	34.59	0.35	122							
574	7.27	34.51	0.23	105							

147.20 STRANGER; January 17, 1958; 1317 GCT; 24°07'N, 111°20'W; sounding, 60 fm; wind, 040°, force 4; weather, cloudy; sea, very rough; wire angle, 00°.

0	22.36	34.69	4.84	401	0	22.36	34.69	4.84	23.90	401	0.00
10	22.36	34.69	4.89	401	10	22.36	34.69	4.89	23.90	401	0.04
29	22.24	34.71	4.73	397	20	22.30	34.70	4.81	23.92	400	0.08
49	21.79	34.70	4.58	385	30	22.23	34.71	4.72	23.96	396	0.12
74	20.54	34.60	3.41	360	50	21.77	34.70	4.55	24.07	384	0.20
98	17.66	34.42	2.58	303	75	20.49	34.60	3.37	24.35	359	0.29
					100	(17.40)	(34.41)	(2.52)	(24.99)	(298)	(0.38)

147.25 STRANGER; January 17, 1958; 1042 GCT; 23°56'N, 111°35'W; sounding, 175 fm; wind, 050°, force 4; weather, overcast; sea, high; wire angle, 00°.

0	22.17	34.67	4.42	398	0	22.17	34.67	4.42	23.94	398	0.00
10	22.17	34.67	4.91	398	10	22.17	34.67	4.91	23.94	398	0.04
29	22.20	34.68	4.96	398	20	22.18	34.67	4.92	23.94	398	0.08
48	21.97	34.72	4.84	388	30	22.20	34.69	4.95	23.95	397	0.12
72	19.99	34.44	4.30	357	50	21.90	34.72	4.83	24.04	388	0.20
97	15.44	34.18	2.79	272	75	19.22	34.38	4.11	24.49	345	0.29
120	14.24	34.35	1.73	235	100	15.22	34.19	2.62	25.32	266	0.37
156	12.78	34.54	0.72	192	150	13.00	34.51	0.88	26.03	199	0.48
193	12.04	34.63	0.43	172	200	11.96	34.63	0.40	26.33	170	0.58
240	11.36	34.65	0.26	158	250	(11.20)	(34.65)	(0.23)	(26.49)	(155)	(0.66)

147.30 STRANGER; January 17, 1958; 0755 GCT; 23°43'N, 111°52'W; sounding, 235 fm; wind, 100°, force 4; weather, cloudy; sea, moderate; wire angle, 12°.

0	22.48	34.58	4.64	413	0	22.48	34.58	4.64	23.78	413	0.00
9	22.49	34.60	4.77	413	10	22.48	34.60	4.78	23.78	413	0.04
28	22.20	34.65a)	4.86	400	20	22.38	34.64	4.81	23.86	406	0.08
47	21.53	34.56	4.76	389	30	22.19	34.65	4.86	23.93	399	0.12
72	19.38	34.31	4.24	352	50	21.35	34.54	4.72	24.06	386	0.20
95	15.57b)	34.01	3.34	289	75	18.87	34.26	4.13	24.50	344	0.29
118	14.23	34.22	2.12	244	100	15.25	34.02	3.12	25.17	280	0.37
154	12.80	34.57	0.53	190	150	12.93	34.54	0.65	26.08	194	0.49
191	12.34	34.61	0.40	179	200	12.20	34.62	0.37	26.28	175	0.58
237	11.38	34.67	0.29	157	250	11.16	34.66	0.28	26.51	153	0.67
285	10.59	34.64	0.26	145	300	10.39	34.63	0.24	26.62	143	0.75
382	9.46	34.59	0.17	131							

a) Loose bottle cap; value falls on property curve.
b) Mean value of 15.49 and 15.64°C.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
STRANGER; January 17, 1958; 0248 GCT; 23°18'N, 112°27'W; sounding, 1800 fm; wind, 110°, force 2; weather, rain; sea, rough; wire angle, 14°.											147.40
0	24.02	34.55		458	0	24.02	34.55		23.31	458	0.00
10	24.03	34.56		457	10	24.03	34.56		23.32	457	0.04
28	23.78	34.60		446	20	23.87	34.59		23.39	450	0.09
43	23.32	34.65		431	30	23.77	34.60		23.44	445	0.14
52	22.97	34.65		420	50	23.02	34.65		23.69	422	0.22
61	21.72	34.57		393	75	20.75	34.50		24.21	372	0.32
70	21.20	34.54		381	100	16.84	34.30		25.03	294	0.41
88	18.96	34.34		339	150	12.40	34.37		26.05	198	0.53
101	16.64	34.30		289	200	11.49	34.62		26.40	164	0.62
115	13.41	33.95		248	250	11.00	34.65		26.52	152	0.70
136	12.83	34.32		209	300	10.48	34.64		26.61	144	0.77
161	12.04	34.40		189	400	9.38	34.60		26.77	129	0.92
195	11.57	34.61		164	500	8.02	34.54		26.94	113	1.05
241	11.08	34.65		154							
316	10.30	34.64		141							
409	9.25	34.60		127							
543	7.28	34.51		106							
STRANGER; January 16, 1958; 0900 GCT; 23°23'N, 110°39'W; sounding, 100 fm; wind, 040°, force 3; weather, cloudy; sea, moderate; wire angle, 00°.											150.19
0	22.04	34.72		390	0	22.04	34.72		24.02	390	0.00
10	22.06	34.77		388	10	22.06	34.77		24.04	388	0.04
30	22.04	34.72		390	20	22.06	34.75		24.03	389	0.08
49	20.58	34.52		367	30	22.04	34.72		24.02	390	0.12
73	17.63	34.55		295	50	20.43	34.52		24.30	364	0.19
97	15.46	34.52		247	75	17.41	34.55		25.07	290	0.27
121	14.08	34.63		211	100	15.46	34.60		25.58	242	0.34
150	13.49	34.63		200	150	13.49	34.63		26.02	200	0.45
STRANGER; January 16, 1958; 1232 GCT; 23°12'N, 111°02'W; sounding, 650 fm; wind, 040°, force 4; weather, overcast; sea, moderate; wire angle, 10°.											150.25
0	22.28	34.71	4.65	398	0	22.28	34.71	4.65	23.94	398	0.00
10	22.29	34.70	4.70	399	10	22.29	34.70	4.70	23.93	399	0.04
29	22.30	34.71	4.78	398	20	22.29	34.70	4.74	23.93	399	0.08
43	22.24	34.70	4.77	397	30	22.30	34.71	4.78	23.94	398	0.12
53	20.88	34.56	3.70	372	50	22.02	34.68	4.64	23.99	393	0.20
62	19.77	34.51	3.36	347	75	19.00	34.52	2.71	24.67	328	0.29
72	19.28	34.53	2.78	334	100	15.78	34.39	1.87	25.35	264	0.36
90	16.52	34.28	2.69	288	150	13.55	34.63	0.63	26.01	200	0.48
105	15.45	34.45	1.46	252	200	12.19	34.66	0.37	26.31	172	0.57
120	14.37	34.54	1.05	223	250	11.49	34.70	0.20	26.47	157	0.66
142	13.86	34.63	0.73	207	300	10.73	34.66	0.17	26.58	146	0.74
168	12.66	34.62	0.49	184	400	9.25	34.57	0.16	26.76	129	0.88
204	12.12	34.67	0.36	170	500	8.07	34.55	0.16	26.94	113	1.01
253	11.45	34.70	0.20	156							
331	10.26	34.63	0.16	141							
426	8.87	34.56	0.16	124							
564	7.44	34.55	0.16	104							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^{-5} cm/g	ΔD dyn. m

150.30 STRANGER; January 16, 1958; 1550 GCT; 23°03'N, 111°21'W; sounding, 1550 fm; wind, 040°, force 4; weather, drizzle; sea, moderate; wire angle, 00°.

0	23.62	34.55	4.57	446	0	23.62	34.55	4.57	23.43	446	0.00
9	23.62	34.54	4.78	446	10	23.62	34.54	4.79	23.43	446	0.04
33	22.74	34.70	5.00	411	20	22.84	34.69	5.00	23.77	414	0.09
62	22.40	34.68	4.63	403	30	22.77	34.70	5.00	23.79	412	0.13
72	20.67	34.48	4.02	373	50	22.58	34.69	4.90	23.84	407	0.21
86	17.87	34.28	3.39	318	75	19.67	34.40	3.78	24.41	353	0.30
96	16.97	34.31	2.72	295	100	16.65	34.35	2.39	25.11	286	0.38
114	15.50	34.52	1.27	248	150	13.40	34.61	0.52	26.03	199	0.51
128	14.48	34.60	0.87	221	200	11.58	34.59	0.43	26.37	166	0.60
146	13.62	34.61	0.56	203	250	11.13	34.69	0.26	26.53	152	0.68
169	12.44	34.61	0.43	181	300	10.60	34.67	0.26	26.62	143	0.76
196	11.62	34.58	0.48	168	400	8.92	34.54	0.22	26.79	126	0.90
224	11.37	34.69	0.26	155	500	7.70	34.53	0.15	26.96	110	1.02
280	10.83	34.69	0.27	146	600	6.84	34.51	0.14	27.08	99	1.14
377	9.24	34.55	0.24	131							
472	8.01	34.53	0.16	114							
617	6.72	34.51	0.13	97							

150.40 STRANGER; January 16, 1958; 2059 GCT; 22°44'N, 112°00'W; sounding, 1800 fm; wind, 050°, force 6; weather, cloudy; sea, very rough; wire angle, 32°.

0	22.68	34.73	4.88	407	0	22.68	34.73	4.88	23.84	407	0.00
8	22.66	34.69	4.85	410	10	22.66	34.70	4.86	23.82	409	0.04
29	22.54	34.76	4.91	401	20	22.62	34.75	4.88	23.86	405	0.08
54	22.32	34.71	4.91	399	30	22.53	34.76	4.91	23.91	401	0.12
62	22.04	34.72	-	391	50	22.36	34.72	4.91	23.92	400	0.20
74	21.94	34.75	4.76	386	75	21.93	34.75	4.76	24.06	386	0.30
81	21.60	34.71	4.86	380	100	20.73	34.59	4.34	24.28	365	0.40
96	21.06	34.63	4.59	371	150	13.67	34.58	0.83	25.95	206	0.53
106	17.84	34.33	3.09	314	200	12.29	34.76	0.35	26.36	167	0.62
120	15.02	34.29	2.78	255	250	11.15	34.70	0.31	26.54	151	0.71
136	14.17	34.50	1.19	222	300	10.22	34.63	0.30	26.64	141	0.78
155	13.48	34.61	0.71	200	400	9.10	34.60	0.20	26.80	125	0.92
175	12.90	34.70	0.53	183	500	(7.61)	(34.55)	(0.16)	(27.00)	(107)	(1.04)
215	11.97	34.77	0.29	160							
276	10.60	34.65	0.33	145							
357	9.65	34.61	0.26	132							
482	7.94	34.56	0.16	111							

153.16 STRANGER; January 16, 1958; 0446 GCT; 22°55'N, 110°07'W; sounding, 280 fm; wind, calm; weather, overcast; sea, moderate; wire angle, 02°.

0	22.67	34.68	4.92	411	0	22.67	34.68	4.92	23.80	411	0.00
10	22.56	34.70	4.85	406	10	22.56	34.70	4.85	23.85	406	0.04
30	22.54	34.70	4.81	405	20	22.55	34.70	4.83	23.85	406	0.08
49	22.30	34.67	4.49	401	30	22.54	34.70	4.81	23.86	405	0.12
73	19.81	34.51	3.22	348	50	22.29	34.67	4.48	23.90	401	0.20
97	16.44	34.49	1.74	271	75	19.51	34.50	3.11	24.52	342	0.30
120	14.70	34.52	0.98	231	100	16.19	34.49	1.60	25.34	265	0.37
159	13.55	34.63	0.50	200	150	13.79	34.61	0.60	25.94	207	0.49
195	12.68	34.87u	0.34		200	12.60	34.68	0.33	26.25	178	0.59
242	11.83	34.71	0.23	162	250	11.70	34.71	0.22	26.44	160	0.68
289	11.23	34.70	0.19	152	300	11.10	34.69	0.17	26.54	150	0.76
390	9.81	34.60	0.16	136	400	(9.65)	(34.59)	(0.16)	(26.71)	(134)	(0.90)

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^{-5} cm^3/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^{-5} cm^3/g	ΔD dyn. m

STRANGER; January 16, 1958; 0105, 0150 GCT; 22°47'N, 110°22'W; sounding, 750 fm; wind, 290°, force 2; weather, overcast; sea, moderate; wire angle, 12°, 16°. 153.20

0	23.74	34.58	4.79	447	0	23.74	34.58	4.79	23.42	447	0.00
9	23.42	34.65	4.76	433	10	23.40	34.65	4.74	23.58	432	0.04
28	22.54	34.60	4.23	413	20	22.90	34.62	4.48	23.69	421	0.09
38	22.51	34.69	4.13	406	30	22.53	34.60	4.20	23.78	412	0.13
48	21.60	34.63	4.05	386	50	21.55	34.63	4.02	24.08	384	0.21
57	21.42	34.65	3.98	379	75	19.89	34.51	3.81	24.43	351	0.30
67	20.76	34.59	3.95	367	100	16.30	34.33	2.29	25.19	279	0.38
81	18.88	34.42	3.53	332	150	13.24	34.56	0.90	26.03	199	0.50
94	17.08	34.27	2.89	301	200	12.31	34.72	0.23	26.32	171	0.59
108	15.54	34.45	1.53	254	250	11.47	34.68	0.18	26.45	158	0.68
130	13.52	34.44	0.95	214	300	10.94	34.67	0.23	26.55	150	0.76
156	13.20	34.60	0.89	196	400	9.55	34.60	0.16	26.73	132	0.90
					500	8.10	34.52	0.20	26.90	116	1.03
188	12.53	34.72	0.30	174							
232	11.74	34.68	0.16	162							
304	10.87	34.67	0.26	149							
394	9.62	34.60	0.16	133							
515	7.90	34.51	0.21	114							

STRANGER; January 15, 1958; 1857 GCT; 22°27'N, 110°59'W; sounding, 1600 fm; wind, 040°, force 4; weather, cloudy; sea, rough; wire angle, 03°. 153.30

0	24.44	34.49	4.71	473	0	24.44	34.49	4.71	23.15	473	0.00
10	24.44	34.50	4.73	473	10	24.44	34.50	4.73	23.15	473	0.05
28	24.36	34.49	4.74	271	20	24.40	34.49	4.73	23.16	472	0.09
44	24.27	34.52	4.67	467	30	24.35	34.49	4.74	23.18	470	0.14
53	24.20	34.56	4.67	461	50	24.23	34.55	4.67	23.26	463	0.24
63	22.48	34.45	3.65	422	75	19.02	34.39	3.14	24.57	338	0.34
71	20.12	34.42	3.37	362	100	16.19	34.43	1.77	25.28	270	0.41
90	16.86	34.31	2.49	293	150	13.30	34.60	0.49	26.05	198	0.53
104	15.83	34.45	1.50	260	200	11.73	34.65	0.26	26.39	165	0.62
117	13.28	34.13	2.19	232	250	11.06	34.69	0.24	26.54	151	0.70
140	13.58	34.60	0.63	203	300	10.43	34.67	0.20	26.64	141	0.78
168	12.54	34.60	0.41	183	400	8.97	34.55	0.20	26.80	126	0.92
204	11.62	34.65	0.25	163	500	7.61	34.51	0.20	26.97	110	1.04
256	11.00	34.69	0.24	149							
334	9.86	34.64	0.18	134							
433	8.41	34.51	0.24	121							
571	6.97	34.51	0.16	101							

STRANGER; January 15, 1958; 1324 GCT; 22°06'N, 111°36'W; sounding, 1800 fm; wind, 040°, force 3; weather, cloudy; sea, moderate; wire angle, 04°. 153.40

0	24.08	34.54		460	0	24.08	34.54		23.28	460	0.00
10	24.08	34.56		459	10	24.08	34.56		23.30	459	0.04
29	24.07	34.61		455	20	24.07	34.58		23.32	457	0.09
39	24.04	34.57		456	30	24.05	34.60		23.34	455	0.14
49	23.64	34.56		446	50	23.53	34.56		23.46	443	0.23
58	22.60	34.52		420	75	19.53	34.52		24.52	342	0.32
68	20.39	34.45		367	100	17.35	34.61		25.15	282	0.40
82	18.84	34.58		320	150	13.94	34.79		26.06	196	0.52
96	17.70	34.60		391	200	12.05	34.81		26.46	158	0.61
111	16.28	34.65		256	250	10.89	34.74		26.62	143	0.69
134	14.64	34.74		214	300	9.94	34.68		26.73	132	0.76
161	13.43	34.81		185	400	8.28	34.59		26.91	115	0.89
193	12.24	34.82		161	500	6.97	34.55		27.09	98	1.00
239	11.12	34.76		146							
313	9.68	34.66		130							
406	8.28	34.58		114							
530	6.53	34.54		93							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
153.50	STRANGER; January 15, 1958; 0750 GCT; 21°46'N, 112°14'W; sounding, 1800 fm; wind, 360°, force 1; weather, cloudy; sea, moderate; wire angle, 06°.										
0	23.62	34.63	4.64	440	0	23.62	34.63	4.64	23.50	440	0.00
10	23.57	34.64	4.81	438	10	23.57	34.64	4.81	23.52	438	0.04
29	23.48	34.63	4.73	437	20	23.54	34.64	4.81	23.52	438	0.09
39	22.32	34.51	4.31	413	30	23.46	34.62	4.72	23.54	436	0.13
48	21.06	34.45	3.64	384	50	20.95	34.45	3.60	24.11	382	0.21
58	20.08	34.51	3.33	355	75	17.33	34.41	2.46	25.00	297	0.30
67	18.70	34.47	2.81	324	100	14.91	34.34	1.63	25.50	249	0.37
82	16.38	34.36	2.22	278	150	11.82	34.40	0.90	26.18	184	0.48
96	15.20	34.33	1.78	256	200	11.30	34.69	0.42	26.50	154	0.56
110	14.15	34.42	1.26	227	250	10.78	34.66	0.27	26.57	148	0.64
132	12.26	34.31	1.23	200	300	10.22	34.68	0.21	26.68	137	0.71
160	11.62	34.50	0.72	174	400	8.62	34.57	0.33	26.86	120	0.85
193	11.38	34.69	0.48	156	500	7.47	34.53	0.34	27.00	107	0.97
239	10.88	34.66	0.28	150							
312	10.06	34.68	0.20	134							
407	8.52	34.56	0.34	119							
530	7.20	34.52	0.34	103							
157.10	STRANGER; January 14, 1958; 0615 GCT; 22°33'N, 109°23'W; sounding, 1600 fm; wind, 040°, force 3; weather, clear; sea, moderate; wire angle, 13°.										
0	24.68	34.45a)	4.64	484	0	24.68	34.45	4.64	23.04	484	0.00
10	24.69	34.44	4.68	484	10	24.69	34.44	4.68	23.04	484	0.05
29	24.22	34.47	4.62	469	20	24.67	34.44	4.68	23.04	484	0.10
43	23.30	34.58	4.67	435	30	24.21	34.47	4.62	23.20	468	0.14
52	22.71	34.60	4.31	418	50	22.78	34.60	4.34	23.71	420	0.23
62	22.42	34.65	4.33	406	75	21.63	34.69	3.78	24.11	382	0.33
71	21.98	34.70	4.00	390	100	16.90	34.59	1.97	25.25	273	0.42
89	18.81	34.57	2.64	320	150	13.81	34.74	0.52	26.05	197	0.53
103	16.36	34.60	1.74	261	200	12.49	34.81	0.36	26.36	167	0.63
116	15.20	34.58	1.09	237	250	11.46	34.77	0.21	26.54	151	0.71
137	14.21	34.69	0.60	209	300	10.70	34.74	0.09	26.64	141	0.78
162	13.46	34.78	0.47	188	400	9.19	34.59	0.12	26.79	127	0.92
196	12.60	34.81	0.39	169	500	7.85	34.53	0.11	26.95	112	1.05
242	11.61	34.78	0.25	153							
316	10.47	34.72	0.08	138							
408	9.05	34.58	0.12	126							
544	7.28	34.52	0.09	104							
157.20	STRANGER; January 14, 1958; 1109 GCT; 22°13'N, 110°00'W; sounding, 1700 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 15°.										
0	24.91	34.50	4.71	486	0	24.91	34.50	4.71	23.01	486	0.00
9	24.94	34.50	4.64	487	10	24.94	34.50	4.64	23.00	487	0.05
28	24.85	34.47	4.65	487	20	24.93	34.48	4.64	23.00	487	0.10
42	24.44	34.60	4.67	466	30	24.84	34.47	4.66	23.01	486	0.15
51	24.12	34.69	4.36	450	50	24.15	34.69	4.39	23.38	451	0.24
60	23.96	34.74	4.38	442	75	23.66	34.91	4.44	23.69	421	0.35
69	23.80	34.87	4.49	428	100	21.90	35.07	3.68	24.32	362	0.45
88	22.98	35.03	4.09	394	150	14.85	34.56	1.00	25.68	232	0.60
101	21.84	35.07	3.65	360	200	12.81	34.74	0.37	26.25	178	0.70
113	19.22	34.78	2.29	314	250	11.85	34.75	0.26	26.44	160	0.79
135	16.34	34.58	1.33	262	300	11.09	34.71	0.27	26.56	149	0.87
159	14.20	34.56	0.83	218	400	9.46	34.60	0.14	26.75	130	1.02
192	13.05	34.73	0.42	183	500	7.98	34.57	0.21	26.96	110	1.14
238	12.01	34.75	0.25	163							
311	10.92	34.70	0.27	147							
405	9.38	34.60	0.12	129							
541	7.39	34.56	0.27	103							

a) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
STRANGER; January 14, 1958; 1616 GCT; 21°52'N, 110°38'W; sounding, 1700 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 15°.											157.30
0	25.04	34.43		495	0	25.04	34.43		22.92	495	0.00
10	25.04	34.43		495	10	25.04	34.43		22.92	495	0.05
28	25.04	34.43		495	20	25.04	34.43		22.92	495	0.10
42	24.66	34.56		475	30	25.04	34.43		22.92	495	0.15
52	24.46	34.67		461	50	24.49	34.66		23.27	462	0.24
61	24.06	34.72		446	75	(23.70)	(34.86)		(23.65)	(425)	(0.36)
71	23.94	34.85		433							
STRANGER; January 14, 1958; 2100 GCT; 21°32.5'N, 111°14.5'W; sounding, 1705 fm; wind, 020°, force 3; weather, overcast; sea, moderate; wire angle, 04°.											157.40
0	25.30	34.27	4.62	514	0	25.30	34.27	4.62	22.72	514	0.00
9	25.34	34.25	4.81	516	10	25.34	34.25	4.81	22.70	516	0.05
29	25.03	34.42	4.77	495	20	25.30	34.26	4.81	22.71	515	0.10
43	24.89	34.45	4.79	489	30	25.01	34.43	4.77	22.93	494	0.15
53	22.86	34.40	4.60	436	50	24.29	34.44	4.75	23.15	473	0.25
62	20.98	34.37	3.52	388	75	18.30	34.35	2.62	24.72	324	0.35
72	18.80	34.34	2.86	336	100	15.33	34.51	1.01	25.54	245	0.42
91	16.08	34.45	1.21	266	150	13.20	34.73	0.42	26.16	186	0.53
105	14.92	34.54	0.94	235	200	11.89	34.73	0.25	26.42	162	0.62
120	14.28	34.58	0.70	218	250	11.32	34.74	0.17	26.54	151	0.70
143	13.46	34.73	0.42	191	300	10.57	34.70	0.16	26.64	141	0.78
170	12.37	34.70	0.26	173	400	9.09	34.59	0.20	26.80	126	0.92
207	11.84	34.73	0.25	161	500	7.93	34.54	0.20	26.95	112	1.04
258	11.21	34.74	0.16	149							
336	9.92	34.63	0.15	135							
436	8.62	34.57	0.21	120							
574	7.13	34.52	0.15	102							
STRANGER; January 15, 1958; 0202, 0230 GCT; 21°12'N, 111°52'W; sounding, 1650 fm; wind, 360°, force 1; weather, overcast; sea, moderate; wire angle, 02°, 02°.											157.50
0	24.14	34.36a)	4.76	474	0	24.14	34.36	4.76	23.14	474	0.00
10	24.14	34.36	4.77	474	10	24.14	34.36	4.77	23.14	474	0.05
29	24.12	34.42	4.77	470	20	24.14	34.39	4.77	23.16	472	0.09
43	23.94	34.49	4.79	459	30	24.10	34.45	4.77	23.21	467	0.14
53	22.38	34.35	4.70	426	50	23.61	34.48	4.77	23.37	452	0.23
62	20.66	34.40	3.84	378	75	17.29	34.11	4.07	24.79	317	0.33
71	17.72	34.09	4.07	329	100	14.22	34.13	2.38	25.49	250	0.40
90	15.79	34.27	2.35	273	150	13.02	34.71	0.18	26.18	185	0.51
104	13.75	34.10	2.39	243	200	11.71	34.71	0.21	26.44	160	0.60
118	14.14	34.62	0.23	213	250	10.87	34.69	0.17	26.58	147	0.68
140	13.35	34.69	0.18	192	300	10.13	34.65	0.16	26.68	137	0.75
167	12.58	34.72	0.14	175	400	8.72	34.58	0.19	26.86	120	0.88
203	11.61	34.71	0.21	158	500	7.47	34.53	0.18	27.00	107	1.00
254	10.80	34.69	0.16	146							
332	9.67	34.63	0.16	132							
430	8.28	34.56	0.20	115							
569	6.79	34.51	0.15	99							

a) Loose bottle cap; value falls on property curve.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

80.55 PAOLINA-T; February 10, 1958; 1652 GCT; 34°19'N, 120°48.5'W; sounding, 415 fm; wind, 320°, force 6; weather, partly cloudy; sea, very rough; wire angle, 04°.

0	15.13	33.55	311	0	15.13	33.55	24.85	311	0.00
10	15.12	33.56	310	10	15.12	33.56	24.86	310	0.03
30	15.14	33.58	310	20	15.13	33.57	24.86	310	0.06
60	13.86	33.55	286	30	15.14	33.58	24.86	310	0.09
69	12.93	33.51	270	50	14.61	33.57	24.98	299	0.15
79	12.32	33.58	254	75	12.50	33.56	25.39	259	0.22
93	11.10	33.62	230	100	10.87	33.67	25.79	222	0.28
107	10.76	33.73	216	150	9.81	33.90	26.15	187	0.39
122	10.48	33.77	208	200	9.32	34.04	26.34	170	0.48
141	9.96	33.85	194	250	8.84	34.16	26.50	154	0.56
160	9.72	33.93	184	300	8.48	34.21	26.60	145	0.64
189	9.44	34.00	175	400	7.62	34.27	26.78	128	0.78
214	9.15	34.09	163	500	6.86	34.29	26.90	116	0.91
267	8.75	34.18	150	600	(6.00)	(34.30)	(27.02)	(105)	(1.02)
350	8.00	34.25	134						
457	7.22	34.29	121						
595	6.02	34.30	105						

80.60 PAOLINA-T; February 10, 1958; 1337 GCT; 34°11.5'N, 121°03'W; sounding, 670 fm; wind, 320°, force 4; weather, cloudy; sea, very rough; wire angle, 07°.

0	14.98	33.53	309	0	14.98	33.53	24.87	309	0.00
10	14.97	33.51	310	10	14.97	33.51	24.86	310	0.03
29	14.71	33.49	307	20	14.83	33.50	24.87	309	0.06
45	14.43	33.53	298	30	14.70	33.49	24.90	306	0.09
54	13.85	33.50	289	50	14.16	33.52	25.03	294	0.15
64	13.40	33.48	282	75	11.96	33.46	25.43	256	0.22
73	12.12	33.46	259	100	10.65	33.56	25.74	227	0.28
92	11.20	33.51	240	150	9.52	33.96	26.24	179	0.38
106	10.26	33.60	217	200	9.21	34.09	26.39	165	0.47
121	9.65	33.65	204	250	8.46	34.14	26.56	149	0.55
144	9.52	33.91	182	300	7.82	34.18	26.68	137	0.63
172	9.50	34.02	174	400	7.00	34.24	26.85	121	0.76
211	9.06	34.11	161	500	6.24	34.26	26.96	110	0.88
263	8.21	34.15	145	600	(5.65)	(34.31)	(27.08)	(100)	(0.99)
344	7.46	34.22	129						
446	6.60	34.25	116						
589	5.71	34.30	101						

80.90 PAOLINA-T; February 9, 1958; 2025 GCT; 33°16.5'N, 123°11.5'W; sounding, 2300+ fm; wind, 320°, force 1; weather, cloudy; sea, high; wire angle, 00°.

1	15.20	33.31	330	0	(15.20)	(33.32)	(24.64)	(331)	(0.00)
11	14.93	33.30	325	10	14.94	33.30	24.69	326	0.03
31	15.06	33.50	314	20	14.97	33.40	24.76	320	0.06
56	14.76	33.49	308	30	15.06	33.49	24.82	314	0.10
66	14.37	33.40	306	50	14.83	33.49	24.87	309	0.16
75	13.78	33.41	294	75	13.78	33.41	25.03	294	0.23
85	13.14	33.44	280	100	12.21	33.38	25.31	267	0.30
99	12.26	33.38	268	150	9.58	33.50	25.88	213	0.43
114	11.56	33.42	252	200	8.62	33.89	26.33	170	0.52
133	10.03	33.46	224	250	8.02	34.12	26.60	145	0.60
152	9.52	33.51	212	300	7.43	34.14	26.70	135	0.68
176	8.90	33.76	184	400	6.60	34.18	26.85	121	0.81
200	8.62	33.89	170	500	6.00	34.25	26.98	109	0.93
248	8.07	34.12	145						
325	7.21	34.14	132						
422	6.43	34.20	117						
549	5.72	34.28	103						

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10 cm/g	ΔD dyn. m

PAOLINA-T; February 7, 1958; 0905, 0928 GCT; 33°24'N, 117°57'W; sounding, 220 fm; wind, direction missing, force 1; weather, overcast; sea, slight; wire angle, 00°, 00°. 90.30

1	16.32	33.66	329	0	(16.32)	(33.65)	(24.66)	(329)	(0.00)
11	16.34	33.70	326	10	16.33	33.70	24.68	327	0.03
31	16.20	33.66	326	20	16.28	33.68	24.70	326	0.06
51	15.48	33.62	314	30	16.22	33.66	24.70	326	0.10
75	13.77	33.53	285	50	15.50	33.62	24.82	314	0.16
101	12.34	33.56	256	75	13.77	33.53	25.12	285	0.24
126	11.22	33.58	235	100	12.40	33.56	25.41	258	0.31
164	10.32	33.84a)	200	150	10.59	33.77	25.91	210	0.42
204	9.12	33.89	178	200	9.21	33.88	26.23	180	0.52
251	9.30	34.27	152	250	9.30	34.26	26.51	153	0.61
301	8.99	34.37	140	300	8.99	34.37	26.65	140	0.68
340	8.51	34.34	135						

PAOLINA-T; February 7, 1958; 1335 GCT; 33°11'N, 118°23.5'W; sounding, 630 fm; wind, direction missing, force 1; weather, partly cloudy; sea, moderate; wire angle, 00°. 90.37

0	16.25	33.66	327	0	16.25	33.66	24.68	327	0.00
10	16.26	33.65	328	10	16.26	33.65	24.67	328	0.03
30	16.20	33.67	325	20	16.23	33.66	24.68	327	0.06
56	15.40	33.56a)	316	30	16.20	33.67	24.70	325	0.10
65	14.26	33.46	300	50	16.08	33.65	24.72	324	0.16
75	13.32	33.45	282	75	13.32	33.45	25.16	282	0.24
85	12.91	33.52	269	100	11.80	33.51	25.49	250	0.31
99	11.88	33.51	251	150	10.37	33.79	25.97	204	0.42
113	10.80	33.48	235	200	9.65	34.00	26.25	178	0.52
132	10.46	33.60	220	250	8.51	34.14	26.55	149	0.60
152	10.37	33.82	202	300	8.05	34.20	26.66	139	0.68
176	10.06	33.96	187	400	7.30	34.31	26.85	121	0.81
199	9.68	34.00	178	500	6.62	34.34	26.98	109	0.93
247	8.59	34.13	152						
323	7.92	34.22	136						
420	7.18	34.33	117						
548	6.27	34.34	105						

PAOLINA-T; February 7, 1958; 1905 GCT; 32°55.5'N, 118°56'W; sounding, 940 fm; wind, 190°, force 1; weather, cloudy; sea, moderate; wire angle, 00°. 90.45

0	16.51	33.71a)	329	0	16.51	33.71	24.66	329	0.00
11	16.40	33.69	328	10	16.40	33.70	24.67	328	0.03
30	16.38	33.68	328	20	16.39	33.69	24.67	328	0.06
54	16.38	33.70	326	30	16.38	33.68	24.67	328	0.10
63	15.91	33.73	314	50	16.38	33.69	24.68	327	0.16
72	15.14	33.66	303	75	14.80	33.63	24.98	299	0.24
81	14.22	33.58	290	100	12.20	33.50	25.41	258	0.31
95	12.57	33.48	266	150	10.43	33.80	25.96	205	0.43
109	11.68	33.57	244	200	9.62	34.05	26.30	174	0.52
126	11.00	33.70	222	250	8.92	34.22	26.54	150	0.61
146	10.56	33.77	209	300	8.43	34.24	26.63	142	0.68
168	9.94	33.90	190	400	7.45	34.30	26.82	124	0.82
197	9.62	34.02	176	500	6.74	34.34	26.96	111	0.94
244	9.00	34.22	152						
319	8.28	34.24	140						
414	7.34	34.31	121						
538	6.46	34.34	107						

a) Loose bottle cap; value falls on property curve.

SIO

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{3}^{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{3}^{-5} 10^{-5} cm/g	ΔD dyn. m

90.55 PAOLINA-T; February 8, 1958; 0225 GCT; 32°35.5'N, 119°38'W; sounding, 500 fm; wind, 190°, force 4; weather, overcast; sea, very rough; wire angle, 00°.

0	15.20	33.52	315	0	15.20	33.52	24.81	315	0.00
10	15.21	33.49	317	10	15.21	33.49	24.79	317	0.03
31	15.06	33.52	312	20	15.15	33.50	24.81	315	0.06
56	14.06	33.48	295	30	15.06	33.52	24.84	312	0.09
65	12.44	33.43	268	50	14.85	33.52	24.88	308	0.16
75	11.85	33.44	256	75	11.85	33.44	25.43	256	0.23
84	10.86	33.48	236	100	10.02	33.54	25.82	218	0.29
99	10.06	33.54	219	150	9.38	33.82	26.15	187	0.39
113	9.74	33.62	207	200	8.90	34.04	26.40	164	0.48
132	9.52	33.75	194	250	8.45	34.23	26.62	143	0.56
151	9.38	33.82	187	300	7.99	34.27	26.72	133	0.63
175	9.19	33.92a)	177	400	7.11	34.30	26.87	119	0.76
199	8.93	34.03	164	500	6.72	34.31	26.94	113	0.88
246	8.51	34.22	144						
323	7.74	34.28	128						
420	7.00	34.30	117						
548	6.54	34.33	109						

90.60 PAOLINA-T; February 8, 1958; 0611 GCT; 32°26.5'N, 119°59'W; sounding, 540 fm; wind, 190°, force 4; weather, drizzle; sea, very rough; wire angle, 15°.

0	16.06	33.60	327	0	16.06	33.60	24.68	327	0.00
10	16.07	33.55	331	10	16.07	33.55	24.64	331	0.03
28	16.02	33.59	327	20	16.03	33.57	24.66	329	0.06
52	15.48	33.58	316	30	16.02	33.59	24.69	326	0.10
61	15.12	33.51	314	50	15.58	33.58	24.78	318	0.16
71	14.82	33.53	307	75	14.18	33.50	25.01	296	0.24
80	13.42	33.46	284	100	11.23	33.44	25.54	245	0.31
94	11.82	33.43	256	150	9.65	33.66	25.98	203	0.42
108	10.67	33.47	233	200	8.98	34.01	26.38	166	0.51
127	10.00	33.59	214	250	8.24	34.15	26.59	146	0.59
146	9.74	33.64	206	300	8.01	34.23	26.68	137	0.67
169	9.18	33.90	178	400	7.09	34.32	26.89	177	0.80
193	9.03	33.98	170	500	6.28	34.34	27.02	105	0.92
240	8.35	34.13	148						
315	7.97	34.25	134						
410	6.99	34.33	115						
534	6.11	34.34	103						

90.70 PAOLINA-T; February 8, 1958; 1240 GCT; 32°08'N, 120°40.5'W; sounding, 2100 fm; wind, 320°, force 4; weather, cloudy; sea, very rough; wire angle, 21°.

0	15.24	33.48	319	0	15.24	33.48	24.77	319	0.00
10	15.22	33.48	318	10	15.22	33.48	24.78	318	0.03
34	15.00	33.50	312	20	15.13	33.49	24.80	316	0.06
61	14.88	33.53	308	30	15.02	33.50	24.82	314	0.10
70	14.61	33.49	305	50	14.97	33.52	24.86	310	0.16
83	12.40	33.41	268	75	13.63	33.44	25.08	289	0.23
91	11.42	33.42	250	100	10.67	33.46	25.66	234	0.30
109	10.26	33.49	225	150	9.22	33.67	26.07	195	0.41
124	9.67	33.56	211	200	8.26	33.99	26.46	158	0.50
141	9.38	33.61	202	250	7.48	34.06	26.63	142	0.57
164	9.00	33.77	185	300	7.05	34.10	26.72	133	0.64
191	8.46	33.95	164	400	6.42	34.20	26.89	117	0.77
218	7.92	34.04	149	500	5.86	34.26	27.01	106	0.89
273	7.30	34.07	138	600	5.30	34.32	27.12	95	1.00
356	6.67	34.17a)	122						
464	6.03	34.24	110						
606	5.26	34.33	94						

a) Possible evaporation; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

PAOLINA-T; February 9, 1958; 0145 GCT; 31°17'N, 121°57'W; sounding, 2200 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 05°. 90.90

0	16.75	33.69		336	0	16.75	33.69	24.59	336	0.00
11	16.74	33.62		340	10	16.74	33.63	24.55	340	0.03
31	16.66	33.68a)		335	20	16.68	33.65	24.57	338	0.07
41	16.64	33.68		334	30	16.66	33.67	24.59	336	0.10
51	16.64	33.68		334	50	16.64	33.68	24.61	334	0.17
61	16.64	33.66		336	75	16.66	33.68	24.60	335	0.25
70	16.66	33.65		337	100	16.61	33.68	24.62	333	0.34
85	16.66	33.68		334	150	13.10	33.47	25.22	276	0.49
99	16.61	33.68		334	200	9.42	33.60	25.98	204	0.62
114	15.56	33.52		322	250	8.41	34.07	26.50	154	0.71
136	14.46	33.48		303	300	7.83	34.12	26.63	142	0.79
164	10.96	33.46		239	400	6.69	34.16	26.82	124	0.92
196	9.54	33.58		207	500	5.96	34.26	26.99	108	1.05
244	8.50	34.05		157						
319	7.66	34.13		139						
413	6.51	34.16		121						
538	5.86	34.33		101						

STRANGER; February 24, 1958; 0815 GCT; 29°50.5'N, 117°23.5'W; sounding, 1550 fm; wind, 340°, force 4; weather, partly cloudy; sea, moderate; wire angle, 04°. 107.50

0	16.58	33.60	5.53	338	0	16.58	33.60	5.53	24.56	338	0.00
10	16.58	33.56	5.51	341	10	16.58	33.56	5.51	24.54	341	0.03
29	16.60	33.59	5.55	340	20	16.59	33.57	5.53	24.54	341	0.07
39	16.60	33.67	5.51	334	30	16.60	33.60	5.54	24.55	340	0.10
44	16.52	33.66	5.62	332	50	16.50	33.71	5.62	24.66	329	0.17
49	16.42	33.66	5.62	331							
54	16.89	33.84	5.62	328							
58	17.48	34.05	5.38	326							
69	16.84	33.96	5.26	318							

STRANGER; February 24, 1958; 0305 GCT; 29°31'N, 118°03'W; sounding, 1800 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 05°. 107.60

0	17.66	33.95	5.45	338	0	17.66	33.95	5.45	24.57	338	0.00
10	17.67	33.98	5.41	336	10	17.67	33.98	5.41	24.59	336	0.03
29	17.66	33.99	5.45	334	20	17.67	33.99	5.44	24.60	335	0.07
54	17.58	33.96	5.33	334	30	17.66	33.99	5.45	24.61	334	0.10
63	17.60	33.98	5.38	333	50	17.59	33.97	5.34	24.61	334	0.17
83	17.54	33.99	5.37	332	75	17.56	33.98	5.38	24.62	333	0.25
97	15.68	33.78	5.33	306	100	15.20	33.72	5.30	24.97	300	0.33
112	13.38	33.50	5.17	280	150	10.90	33.66	3.84	25.78	223	0.46
130	11.90	33.54	4.61	249	200	10.09	34.15	1.98	26.30	173	0.56
148	10.98	33.64	3.88	226	250	9.59	34.28	1.40	26.48	156	0.65
172	10.32	33.90	2.96	196	300	9.19	34.42	0.85	26.65	140	0.72
195	10.18	34.11	2.08	178	400	8.00	34.35	0.74	26.79	127	0.86
240	9.68	34.25	1.52	160	500	6.90	34.36	0.50	26.96	111	0.99
314	9.09	34.42	0.76	138							
406	7.94	34.35	0.74	126							
528	6.60	34.38	0.36	106							

a) Possible evaporation; value falls on property curve.

SIO

CCOFI 5802

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

110.60 STRANGER; February 22, 1958; 2305 GCT; 28°56.5'N, 117°39'W; sounding, 2000 fm; wind, direction missing, force 1; weather, cloudy; sea, moderate; wire angle, 05°.

0	17.96	34.00	5.37	341	0	17.96	34.00	5.37	24.54	341	0.00
10	17.69	33.92	5.33	340	10	17.69	33.92	5.33	24.54	340	0.03
29	17.64	34.00	5.35	334	20	17.66	33.97	5.34	24.59	336	0.07
53	17.60	34.02	5.38	331	30	17.64	34.00	5.35	24.62	333	0.10
73	17.64	34.04	5.37	330	50	17.61	34.01	5.36	24.63	332	0.17
83	17.78	34.17	5.03	324	75	17.69	34.06	5.37	24.65	330	0.25
97	17.52	34.19	4.66	317	100	17.37	34.17	4.66	24.82	314	0.33
111	16.62	34.05	4.67	307	150	12.32	33.86	3.07	25.67	233	0.47
131	13.58	33.73	4.10	266	200	10.60	34.19	1.68	26.23	180	0.58
149	12.36	33.86	3.14	234	250	9.97	34.21	1.01	26.36	167	0.67
171	11.54	34.12	1.88	201	300	9.35	34.37	0.84	26.59	145	0.75
194	10.76	34.18	1.75	182	400	7.82	34.32	0.70	26.79	127	0.89
242	10.03	34.20	1.07	170	500	6.89	34.33	0.44	26.93	114	1.02
315	9.18	34.40	0.81	141							
407	7.73	34.31	0.69	126							
531	6.64	34.34	0.32	110							

120.50 STRANGER; February 19, 1958; 0045 GCT; 27°37.5'N, 115°52'W; sounding, 2400 fm; wind, 360°, force 1; weather, cloudy; sea, moderate; wire angle, 04°.

0	18.55	34.22	5.32	338	0	18.55	34.22	5.32	24.56	338	0.00
10	18.36	34.15	5.35	338	10	18.36	34.15	5.35	24.56	338	0.03
20	18.30	34.22	5.23	333	20	18.30	34.22	5.23	24.62	333	0.07
39	18.25	34.22	5.19	332	30	18.25	34.22	5.19	24.63	332	0.10
64	17.49	34.16	5.15	318	50	18.22	34.22	5.16	24.64	331	0.17
93	13.54	33.85	3.68	257	75	15.97	34.03	4.81	25.04	293	0.24
108	12.85	33.87	3.27	243	100	13.15	33.86	3.46	25.50	249	0.31
121	12.24	33.88	3.14	231	150	10.83	33.93	2.86	26.00	202	0.43
140	11.51	33.96	2.75	212	200	10.00	34.22	1.87	26.37	167	0.52
158	10.20	33.90	2.94	194	250	9.26	34.31	1.31	26.56	149	0.60
181	10.01	34.07	2.73	179	300	8.16	34.26	1.31	26.70	136	0.68
203	9.88	34.22	1.83	165	400	7.58	34.41	0.37	26.89	117	0.81
248	9.33	34.31	1.31	149	500	6.87	34.42	0.23	27.00	107	0.92
321	7.73	34.25	1.32	131							
411	7.58	34.42	0.33	116							
532	6.57	34.41	0.23	103							

120.80 STRANGER; February 18, 1958; 1050 GCT; 26°35'N, 117°50'W; sounding, 1900 fm; wind, direction missing, force 1; weather, cloudy; sea, slight; wire angle, 00°.

0	18.59	34.22	5.25	340	0	18.59	34.22	5.25	24.54	340	0.00
10	18.60	34.09	5.24	349	10	18.60	34.09	5.24	24.45	349	0.03
30	18.61	34.18	5.27	344	20	18.60	34.13	5.25	24.48	346	0.07
54	18.83	34.26	5.29	343	30	18.61	34.18	5.27	24.50	344	0.10
64	18.80	34.26	5.19	342	50	18.82	34.24	5.29	24.52	343	0.17
83	18.44	34.22	5.25	336	75	18.61	34.24	5.22	24.56	338	0.26
98	14.26	33.69	4.88	282	100	14.01	33.67	4.88	25.18	279	0.34
112	12.60	33.60	4.93	258	150	11.78	34.08	2.17	25.93	208	0.46
130	11.38	33.64	4.29	233	200	11.33	34.45	1.02	26.32	172	0.56
148	11.76	34.05	2.31	209	250	10.97	34.61	0.46	26.50	154	0.64
171	11.72	34.31	1.35	190	300	10.05	34.58	0.36	26.64	141	0.72
194	11.42	34.43	1.05	176	400	8.59	34.51	0.30	26.81	125	0.85
239	11.18	34.61	0.53	157	500	7.40	34.49	0.20	26.98	108	0.98
313	9.80	34.57	0.36	138							
406	8.50	34.50	0.29	123							
528	7.08	34.49	0.19	104							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

STRANGER; February 14, 1958; 1540 GCT; 25°00'N, 113°23.5'W; sounding, 1775 fm; wind, 330°, force 4; weather, partly cloudy; sea, rough; wire angle, 05°. 137.40

0	20.57	34.65	5.01	357	0	20.57	34.65	5.01	24.37	357	0.00
10	20.60	34.61	5.03	361	10	20.60	34.61	5.03	24.32	361	0.04
29	20.44	34.66	4.94	353	20	20.55	34.64	4.98	24.37	357	0.07
39	20.34	34.67	4.99	350	30	20.43	34.66	4.94	24.41	353	0.11
48	20.21	34.69	4.99	345	50	20.20	34.68	4.97	24.49	345	0.18
67	20.02	34.65	4.85	344	75	19.50	34.58	4.40	24.60	335	0.26
83	18.52a)	34.49	3.87	318	100	15.80	34.28	2.68	25.26	272	0.34
96	16.26	34.31	2.83	280	150	12.49	34.41	1.07	26.06	196	0.46
110	14.08	34.16	2.33	245	200	11.82	34.60	0.37	26.34	170	0.55
133	13.08	34.31	1.45	215	250	11.12	34.66	0.27	26.51	153	0.63
160	12.16	34.45	0.89	187	300	10.31	34.61	0.29	26.62	143	0.71
194	11.91	34.42r	0.44								
240	11.25	34.67	0.26	155							
315	10.01	34.59b)	0.31	141							

STRANGER; February 10, 1958; 2023 GCT; 23°10'N, 111°03'W; sounding, 750 fm; wind, 340°, force 3; weather, clear; sea, moderate; wire angle, 05°. 150.25

0	23.56	34.54	4.46	444	0	23.56	34.54	4.46	23.45	444	0.00
10	23.44	34.57	4.48	440	10	23.44	34.57	4.48	23.50	440	0.04
30	23.14	34.60	4.54	429	20	23.28	34.58	4.51	23.55	435	0.09
39	23.13	34.61	4.44	428	30	23.14	34.60	4.54	23.61	429	0.13
49	22.78	34.73	4.33	410	50	22.66	34.73	4.28	23.84	407	0.21
58	21.81	34.67	3.80	388	75	19.60	34.54	2.80	24.54	341	0.31
69	20.37	34.49	3.10	364	100	16.63	34.64	1.35	25.35	263	0.39
82	18.74	34.65	2.36	312	150	12.90	34.60	0.54	26.12	190	0.50
96	17.20	34.68	1.52	274	200	11.81	34.73	0.16	26.44	159	0.59
110	15.12	34.50	1.03	242	250	11.17	34.73	0.12	26.56	149	0.67
133	13.79	34.49	0.88	215	300	10.58	34.69	0.13	26.64	142	0.74
164p	12.33	34.70	0.29	172							
228p	11.42	34.74	0.11	153							
324p	10.32	34.67	0.13	139							

STRANGER; February 11, 1958; 0350 GCT; 22°42'N, 111°57.5'W; sounding, 1750 fm; wind, 360°, force 4; weather, missing; sea, moderate; wire angle, 10°. 150.40

0	23.66	34.57	4.80	446	0	23.66	34.57	4.80	23.43	446	0.00
10	23.70	34.58	4.77	445	10	23.70	34.58	4.77	23.44	445	0.04
29	23.46	34.67	4.83	433	20	23.61	34.64	4.80	23.50	439	0.09
38	23.08	34.65	4.79	424	30	23.43	34.67	4.83	23.57	433	0.13
47	22.66	34.72	4.48	407	50	22.49	34.72	4.33	23.89	403	0.22
57	21.12	34.63	3.70	373	75	19.71	35.06	3.07	24.92	304	0.30
66	19.58	34.68	2.67	330	100	17.13	34.95	1.92	25.47	252	0.38
78	19.71	35.12	3.15	302	150	13.62	34.62	0.44	26.00	202	0.49
90	18.47	35.07	2.50	275	200	11.83	34.66		26.38	165	0.58
101	16.82	34.92	1.81	248	250	10.99	34.62	0.23	26.50	154	0.66
120	15.49	34.79	0.95	228	300	10.38	34.61	0.15	26.61	144	0.74
144	13.99	34.63	0.50	209	400	9.06	34.60	0.13	26.82	124	0.88
172	12.18	34.61	0.35	175	500	(7.65)	(34.50)		(26.96)	(111)	(1.01)
213	11.42	34.62	0.30	162							
278	10.65	34.61	0.19	149							
361	9.58	34.63	0.15	130							
474	8.04	34.53	0.13	114							

a) Alternate value, 18.66°C, not used in interpolation.
b) Loose bottle cap; value falls on property curve.

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
80.51-P	II-10	1910	34°26.5'	120°32.0'	50	320°	5	partly cloudy	very rough	15.12	33.62	14.76	33.63
80.70-P	10	0730	33°51.0'	121°53.0'	2000+	320°	2	cloudy	very rough	14.44	33.29	13.72	33.51
80.80-P	10	0140	33°31.0'	122°40.0'	2200	270°	3	cloudy	very rough	15.24	33.26	14.92	33.26
82.47-P	10	2340	34°16.5'	119°55.0'	270	320°	6	clear	very rough	15.48	33.65	13.82	33.62
83.40-P	11	0414	34°14.0'	119°22.5'	13	320°	1	clear	rough	16.05	33.63	-	-
83.43-P	11	0230	34°08.0'	119°34.0'	140	320°	5	partly cloudy	very rough	16.00	33.65	14.08	33.59
83.51-P	11	1150	33°52.0'	120°08.5'	53	320°	6	clear	very rough	15.34	33.63	14.56	33.62
87.35-P	12	1100	33°50.0'	118°38.5'	417	320°	3	fog	rough	16.10	33.66	16.09	33.68
87.40-P	12	0810	33°40.5'	118°59.0'	470	320°	4	clear	rough	16.35	33.71	14.30	33.56
87.45-P	12	0500	33°29.0'	119°19.0'	910	300°	5	partly cloudy	rough	15.56	33.65	12.82	33.64
90.28-P	7	0640	33°28.5'	117°46.5'	240	-	1	overcast	slight	16.28	33.68	15.03	33.62
90.50-P	7	2230	32°45.0'	119°16.5'	195	190°	2	cloudy	rough	15.62	33.63	14.31	33.59
90.80-P	8	1820	31°45.5'	121°19.0'	205	320°	4	cloudy	rough	15.42	33.50	14.66	33.44
93.27-P	13	2320	32°56.0'	117°19.0'	65	270°	2	partly cloudy	rough	16.48	33.75	13.42	33.63
93.30-P	14	0125	32°50.0'	117°31.5'	500	270°	2	cloudy	rough	16.26	33.68	15.02	33.67
93.35-P	14	0445	32°40.0'	117°52.0'	200	270°	3	partly cloudy	rough	16.20	33.60	15.40	33.57
93.40-P	14	0805	32°30.0'	118°12.5'	800	270°	4	partly cloudy	very rough	16.31	33.80	16.10	33.60
93.45-P	14	1125	32°20.0'	118°32.5'	910	320°	4	cloudy	very rough	15.80	33.55	15.82	33.58
93.50-P	14	1440	32°11.5'	118°54.0'	830	320°	4	cloudy	very rough	15.99	33.56	16.02	33.58

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
93.60-P	II-14	1940	31°53.0'	119°33.0'	1160	320°	4	partly cloudy	very rough	15.95	33.59	15.58	33.53
93.70-P	15	0040	31°29.0'	120°11.0'	2200	320°	4	partly cloudy	very rough	15.89	33.58	15.72	33.53
93.80-P	15	0645	31°07.0'	120°52.0'	2278	320°	3	cloudy	rough	16.30	33.53	15.18	33.35
97.30-P	16	1640	32°15.5'	117°07.0'	26	320°	4	cloudy	moderate	16.36	33.66	-	-
97.32-P	16	1530	32°13.0'	117°16.5'	732	320°	3	cloudy	moderate	16.22	33.64	12.93	33.51
97.40-P	16	1122	31°57.5'	117°46.0'	860	340°	3	partly cloudy	moderate	16.69	33.69	16.68	33.68
97.45-P	16	0825	31°46.0'	118°09.0'	650	320°	4	clear	rough	16.40	33.65	16.28	33.66
97.50-P	16	0530	31°35.5'	118°30.0'	1150	320°	3	cloudy	rough	16.22	33.56	15.72	33.55
97.60-P	16	0000	31°18.0'	119°07.0'	1730	320°	3	cloudy	rough	15.98	33.53	15.72	33.51
97.70-P	15	1810	30°53.5'	119°47.0'	1920	320°	3	cloudy	rough	15.90	33.53	15.37	33.51
97.80-P	15	1200	30°34.0'	120°27.5'	2100	320°	3	drizzle	rough	16.18	33.53	15.83	33.48
100.30-P	16	2140	31°40.5'	116°46.5'	240	320°	3	cloudy	moderate	16.13	33.65	12.23	33.66
100.32-P	16	2310	31°38.0'	116°57.5'	630	320°	3	cloudy	moderate	16.62	33.69	15.46	33.58
100.40-P	17	0345	31°21.0'	117°27.0'	1100	040°	2	cloudy	moderate	16.64	33.65	16.46	33.64
100.50-P	17	0910	31°00.0'	118°07.0'	900	340°	2	overcast	moderate	16.66	33.65	16.66	33.66
100.60-P	17	1450	30°38.5'	118°46.0'	1720	340°	2	overcast	moderate	16.64	33.66	16.58	33.66
100.70-P	17	2020	30°18.0'	119°24.5'	2100	-	1	overcast	rough	16.90	33.66	16.37	33.58
100.80-P	18	0105	30°01.0'	120°07.0'	2180	-	1	overcast	rough	15.84	33.53	15.08	33.46
100.90-P	18	0625	29°41.0'	120°46.0'	2800	240°	3	cloudy	rough	16.46	33.59	16.29	33.58

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
103.30-P	II-19	1500	31°03.0'	116°24.5'	40	180°	4	overcast	rough	-	33.68	-	33.55
103.35-P	19	1230	30°53.5'	116°43.0'	950	180°	6	cloudy	very rough	16.49	33.67	16.44	33.68
103.40-P	19	0920	30°43.0'	117°04.5'	1000	180°	5	overcast	moderate	16.64	33.66	16.60	33.66
103.50-P	19	0345	30°27.0'	117°45.0'	1530	160°	3	cloudy	moderate	16.68	33.71	16.40	33.68
103.60-P	18	2225	30°08.0'	118°25.5'	1800	200°	4	cloudy	moderate	16.54	33.66	16.40	33.58
103.70-P	18	1725	29°43.0'	119°03.0'	1870	200°	4	overcast	moderate	16.98	33.74	16.96	33.74
107.32-S	24	1750	30°28.0'	116°12.0'	310	320°	3	cloudy	rough	16.50	33.63	15.12	33.58
107.35-S	24	1605	30°21.5'	116°24.0'	800	330°	3	cloudy	rough	16.69	33.68	16.42	33.69
107.40-S	24	1245	30°10.0'	116°43.0'	1600	320°	3	clear	very rough	16.50	33.62	16.22	33.60
107.70-S	23	2220	29°10.0'	118°44.0'	1750	320°	4	cloudy	rough	16.97	33.69	16.79	33.68
110.33-S	22	1020	29°50.5'	115°52.0'	50	310°	3	partly cloudy	moderate	16.68	33.67	16.32	33.69
110.35-S	22	1130	29°46.5'	116°00.0'	750	310°	3	partly cloudy	moderate	16.42	33.60	15.74	33.58
110.40-S	22	1415	29°36.5'	116°19.5'	1245	340°	3	partly cloudy	very rough	17.42	33.96	17.60	34.10
110.50-S	22	1810	29°16.5'	116°59.0'	1650	320°	3	cloudy	rough	16.73	33.70	17.50	33.99
110.70-S	23	0400	28°36.5'	118°18.0'	1950	320°	3	cloudy	moderate	17.60	33.96	17.50	33.99
110.80-S	23	0820	28°16.5'	118°57.5'	2200	320°	3	partly cloudy	rough	17.28	33.80	17.22	33.81
110.90-S	23	1300	27°56.5'	119°36.0'	2125	320°	2	partly cloudy	rough	17.40	33.85	17.34	33.84
113.30-S	22	0520	29°22.5'	115°17.5'	30	300°	3	missing	moderate	17.47	34.16	16.57	34.10
113.35-S	22	0235	29°07.0'	115°37.0'	850	340°	3	partly cloudy	high	16.76	33.90	14.24	33.75

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
113.40-S	II-22	0015	29°02.0'	115°58.5'	1050	320°	4	partly cloudy	very rough	16.57	-	15.99	33.69
113.45-S	21	2200	28°52.0'	116°18.0'	1150	310°	3	partly cloudy	very rough	17.32	33.87	17.08	33.89
113.50-S	21	1920	28°42.0'	116°37.5'	1900	320°	3	partly cloudy	very rough	16.76	33.74	16.48	33.75
113.60-S	21	1445	28°22.0'	117°17.0'	2050	320°	5	cloudy	very rough	17.48	34.05	17.62	34.13
117.26-S	20	0720	28°56.0'	114°41.0'	42	270°	6	clear	moderate	17.50	34.15	17.18	34.15
117.30-S	20	0915	28°48.0'	114°56.5'	55	230°	1	clear	slight	16.92	33.82	16.22	33.85
117.35-S	20	1200	28°32.5'	115°15.0'	85	230°	4	clear	slight	17.52	34.16	17.56	34.19
117.40-S	20	1710	28°28.0'	115°35.5'	535	220°	4	rain	moderate	17.07	33.91	17.04	34.01
117.50-S	20	2150	28°07.0'	116°14.0'	2300	270°	4	cloudy	high	16.75	33.74	16.29	33.74
117.60-S	21	0255	27°45.5'	116°52.0'	1875	320°	6	cloudy	high	18.00	34.25	17.92	34.23
117.70-S	21	0725	27°30.0'	117°32.0'	2000	320°	6	partly cloudy	high	17.90	34.01	17.93	34.02
118.39-S	20	1350	28°18.5'	115°24.0'	145	220°	4	cloudy	moderate	17.66	34.22	17.45	34.21
119.33-S	19	2310	28°19.0'	114°53.0'	60	200°	3	overcast	moderate	17.68	34.17	17.54	34.17
120.25-S	20	0305	28°23.0'	114°14.5'	37	220°	4	overcast	moderate	17.90	34.22	16.78	34.14
120.30-S	20	0120	28°13.0'	114°34.0'	50	200°	3	drizzle	moderate	17.78	34.22	17.48	34.22
120.35-S	19	2120	28°03.0'	114°54.0'	43	200°	2	overcast	moderate	17.94	34.24	17.58	34.19
120.40-S	19	0540	27°57.0'	115°15.0'	26	270°	1	cloudy	moderate	17.78	34.23	17.74a)	34.18

a) Depth, 40 meters.

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
120.45-S	II-19	0320	27°44.0'	115°33.0'	2150	360°	1	cloudy	moderate	18.68	34.31	17.78	34.24
120.60-S	18	2010	27°18.0'	116°32.0'	2000	-	1	cloudy	slight	18.11	34.04	18.00	34.02
120.70-S	18	1550	26°57.0'	117°13.0'	2050	-	1	cloudy	moderate	18.20	34.11	18.17	34.11
120.90-S	18	0520	26°13.0'	118°27.5'	2200	320°	1	missing	slight	18.70	34.15	18.53	34.16
123.37-S	17	0525	27°24.0'	114°40.0'	45	320°	2	missing	slight	18.56	34.38	17.47	34.30
123.42-S	17	0740	27°14.5'	114°58.0'	1700	320°	2	missing	slight	18.18	34.29	17.58	34.20
123.50-S	17	1140	26°55.5'	115°31.5'	1700	310°	3	partly cloudy	moderate	19.08	34.51	19.06	34.51
123.60-S	17	1515	26°36.5'	116°07.0'	2025	320°	2	partly cloudy	slight	19.92	34.55	19.70	34.52
127.34-S	17	0110	26°55.0'	114°07.0'	40	320°	2	cloudy	moderate	20.35	34.60	18.55	34.40
127.40-S	16	2240	26°44.0'	114°30.0'	1700	300°	2	cloudy	moderate	18.56	34.36	18.14	34.33
127.45-S	16	2005	26°34.5'	114°50.0'	1850	330°	3	partly cloudy	moderate	19.94	34.54	18.86	34.51
127.50-S	16	1730	26°25.0'	115°08.0'	600	320°	3	partly cloudy	moderate	19.74	34.56	19.37	34.56
127.60-S	16	1300	26°06.5'	115°47.0'	2100	320°	3	clear	moderate	19.76	-	19.72	-
130.30-S	15	1830	26°28.0'	113°42.5'	40	040°	2	clear	moderate	20.18	34.58	19.60	34.62
130.35-S	15	2000	26°24.0'	114°49.5'	75	360°	1	clear	moderate	20.46	34.60	19.60	34.60
130.40-S	15	2200	26°14.0'	114°08.5'	750	340°	2	clear	rough	20.95	34.60	20.40	34.61
130.45-S	16	0140	26°05.0'	114°26.5'	2000	320°	2	clear	moderate	20.40	34.61	19.60	34.58
130.50-S	16	0445	25°53.0'	114°48.0'	1000	330°	4	clear	rough	20.18	34.59	19.70	34.56
130.60-S	16	0900	25°33.5'	115°26.0'	2100	340°	3	clear	moderate	18.36	34.07	18.38	34.11

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
133.25-S	II-15	1300	26°05.5'	112°49.5'	40	320°	3	clear	rough	19.44	34.69	19.30a)	34.68
133.30-S	15	1030	25°55.0'	113°08.0'	120	360°	3	partly cloudy	rough	19.94	34.66	19.84	34.69
133.35-S	15	0750	25°45.0'	113°26.0'	500	330°	4	partly cloudy	rough	20.48	34.61	19.90	34.61
133.40-S	15	0550	25°34.5'	113°45.5'	1650	320°	4	partly cloudy	rough	20.84	34.60	20.79	34.62
133.50-S	15	0100	25°13.0'	114°25.5'	2050	320°	2	clear	rough	21.08	34.61	20.96	34.56
137.23-S	14	0700	25°34.0'	112°18.5'	40	320°	4	partly cloudy	rough	20.21	-	20.04	34.69
137.30-S	14	1015	25°20.0'	112°45.5'	160	310°	4	partly cloudy	rough	21.16	34.61	21.14	34.62
137.35-S	14	1300	25°10.0'	113°04.5'	850	320°	4	cloudy	rough	20.66	34.61	19.73	34.61
137.50-S	14	2020	24°40.0'	114°01.5'	2000	330°	3	cloudy	rough	21.46	34.61	21.46	34.54
140.30-S	12	2230	24°38.0'	112°23.0'	88	310°	3	clear	moderate	21.68	34.63	19.29	34.47
140.35-S	12	2000	24°31.0'	112°41.0'	600	320°	2	clear	moderate	20.98	34.62	20.52	34.70
140.40-S	12	1720	24°23.0'	113°00.0'	1900	340°	3	clear	moderate	21.16	-	20.94	34.61
140.50-S	12	1250	24°05.0'	113°40.0'	2000	320°	4	partly cloudy	rough	21.42	34.60	21.35	34.63
143.26-S	12	0000	24°19.0'	111°48.0'	40	320°	4	clear	rough	21.30	34.61	20.75	34.56
143.30-S	12	0155	24°11.0'	112°03.0'	110	320°	3	clear	moderate	22.68	34.65	21.83	34.63
143.35-S	12	0430	24°01.0'	112°22.0'	950	330°	4	clear	rough	22.14	34.67	21.74	34.61
143.40-S	12	0645	23°51.0'	112°40.0'	1700	320°	4	clear	rough	22.66	34.62	21.52	34.61

a) Depth, 30 meters.

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TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
147.20-S	II-11	1900	23°56.0'	111°03.0'	80	330°	4	clear	rough	22.82	34.61	20.82	34.60
147.25-S	11	1645	23°47.0'	111°23.0'	160	360°	5	partly cloudy	rough	21.60	34.70	21.39	34.67
147.30-S	11	1340	23°35.5'	111°47.0'	560	320°	3	partly cloudy	rough	23.50	34.62	23.50	34.61
147.40-S	11	0845	23°17.0'	112°22.0'	1800	320°	4	missing	rough	23.24	34.60	22.90	34.67
150.19-S	10	1640	23°24.0'	110°38.5'	100	220°	2	clear	smooth	22.73	34.61	21.94	34.70
150.30-S	10	2315	23°01.0'	111°19.0'	1450	330°	3	partly cloudy	smooth	23.64	34.55	22.63	34.56

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

BLACK DOUGLAS; March 1, 1958; 2108 GCT; 36°08.5'N, 121°50'W; sounding, 300 fm; wind, 300°, force 2; weather, cloudy; sea, very rough; wire angle, 07°. 70.52

0	13.75	33.33	6.00	299	0	13.75	33.33	6.00	24.98	299	0.00
9	13.66	33.31	6.07	299	10	13.65	33.31	6.05	24.98	299	0.03
29	12.49	33.33	5.61	276	20	13.58	33.31	6.04	25.00	296	0.06
39	11.75	33.25	5.59	268	30	12.40	33.32	5.60	25.24	274	0.09
48	12.14	33.55	4.56	253	50	12.05	33.59	4.33	25.51	248	0.14
58	11.83	33.60	4.17	244	75	11.17	33.62	3.96	25.69	231	0.20
67	11.65	33.60	4.16	241	100	9.97	33.79	3.12	26.04	198	0.25
80	10.74	33.68	3.53	219	150	9.13	34.02	2.24	26.35	168	0.35
94	10.26	33.75	3.17	206	200	8.55	34.08	2.01	26.49	155	0.43
107	9.61	33.82	3.12	191	250	7.93	34.10	1.94	26.61	144	0.50
129	9.33	33.97	2.50	175	300	7.42	34.15	1.46	26.71	134	0.58
156	9.11	34.04	2.23	166	400	(6.48)	(34.24)	(0.86)	(26.91)	(115)	(0.70)
186	8.75	34.08	2.05	158							
231	8.15	34.08	1.99	149							
303	7.40	34.16	1.42	133							
395	6.52	34.23	0.90	116							

BLACK DOUGLAS; March 2, 1958; 0239 GCT; 35°53'N, 122°23'W; sounding, 1600 fm; wind, 360°, force 3; weather, cloudy; sea, very rough; wire angle, 10°. 70.60

0	13.80	33.01	5.59	324	0	13.80	33.01	5.59	24.72	324	0.00
9	13.80	32.97	5.59	327	10	13.80	32.97	5.59	24.68	327	0.03
28	13.72	32.99	5.55	324	20	13.77	32.98	5.58	24.70	325	0.06
53	13.68	32.99	5.60	323	30	13.70	32.99	5.56	24.73	323	0.10
62	13.44	33.03	5.61	316	50	13.68	32.99	5.59	24.73	323	0.16
72	11.71	33.17	5.50	274	75	10.83	33.17	5.36	25.40	259	0.24
80	10.58	33.17	5.33	254	100	9.75	33.25	5.07	25.66	234	0.30
94	10.10	33.22	5.21	243	150	8.66	33.58	3.82	26.08	194	0.41
107	9.30	33.26	4.92	227	200	8.17	33.92	2.31	26.43	161	0.50
124	8.96	33.41	4.53	211	250	7.86	34.05	1.78	26.58	147	0.58
141	8.78	33.55	3.94	198	300	7.22	34.09	1.52	26.69	136	0.65
163	8.46	33.71	3.77	181	400	6.65	34.17	0.80	26.84	122	0.78
185	8.23	33.84	3.25	169	500	5.83	34.20	0.56	26.96	111	0.90
228	8.04	34.04	1.98	151							
299	7.25	34.08	1.54	137							
389	6.70	34.17	0.85	123							
510	5.77	34.20	0.55	109							

BLACK DOUGLAS; March 2, 1958; 0915 GCT; 35°33'N, 123°06'W; sounding, 2000 fm; wind, 360°, force 2; weather, clear; sea, very rough; wire angle, 04°. 70.70

0	13.82	33.35	5.69	299	0	13.82	33.35	5.69	24.97	299	0.00
10	13.82	33.40	5.60	296	10	13.82	33.40	5.60	25.01	296	0.03
29	13.84	33.34	5.60	301	20	13.83	33.38	5.60	25.00	297	0.06
53	13.86	33.39	5.57	297	30	13.84	33.34	5.58	24.96	300	0.09
63	13.26	33.53	5.12	275	50	13.88	33.38	5.57	24.98	298	0.15
72	11.62	33.58	3.76	242	75	11.49	33.59	3.70	25.61	239	0.22
82	11.22	33.60	3.59	233	100	10.53	33.66	3.02	25.84	217	0.27
96	10.68	33.64	3.05	221	150	9.73	33.88	2.54	26.16	187	0.38
109	10.32	33.68	3.02	212	200	9.02	34.03	2.02	26.38	166	0.47
127	10.09	33.73	2.95	205	250	8.36	34.10	1.78	26.54	151	0.55
145	9.84	33.83	2.73	194	300	7.87	34.15	1.34	26.65	140	0.62
168	9.40	33.96	2.17	177	400	6.98	34.26	0.83	26.86	120	0.76
191	9.12	34.02	2.06	168	500	5.94	34.24	0.50	26.98	109	0.88
236	8.54	34.08	1.88	155							
309	7.81	34.16	1.26	139							
402	6.95	34.26	0.83	120							
525	5.64	34.22	0.42	106							

S10

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 -5 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 -5 10 cm/g	ΔD dyn. m

70.80 BLACK DOUGLAS; March 2, 1958; 1532 GCT; 35°13'N, 123°48'W; sounding, 2200 fm; wind, 360°, force 4; weather, partly cloudy; sea, moderate; wire angle, 07°.

0	13.99	33.27	5.82	308	0	13.99	33.27	5.82	24.88	308	0.00
10	14.00	33.24	5.84	311	10	14.00	33.24	5.84	24.85	311	0.03
29	14.14	33.39	5.94	303	20	14.10	33.34	5.91	24.90	306	0.06
53	14.02	33.42	5.81	299	30	14.14	33.39	5.93	24.94	303	0.09
63	13.06	33.48	5.34	275	50	14.04	33.41	5.81	24.97	300	0.15
72	11.89	33.42	4.90	258	75	11.65	33.42	4.79	25.45	254	0.22
81	11.28	33.43	4.60	247	100	10.00	33.46	4.40	25.78	223	0.28
94	10.34	33.44	4.50	230	150	8.93	33.81	2.97	26.22	181	0.38
108	9.69	33.51	4.06	215	200	8.23	33.94	2.47	26.44	160	0.47
125	9.34	33.65	3.44	199	250	7.68	34.01	1.95	26.57	148	0.55
144	9.02	33.77	3.08	186	300	7.13	34.06	1.75	26.68	137	0.62
166	8.60	33.89	2.77	170	400	6.50	34.14	0.96	26.84	122	0.76
188	8.37	33.91	2.57	165	500	6.00	34.18	0.60	26.94	113	0.88
233	7.87	33.99	2.10	152							
305	7.05	34.07	1.72	135							
398	6.53	34.14	0.98	123							
521	5.90	34.19	0.54	112							

70.90 BLACK DOUGLAS; March 2, 1958; 2122, 2147 GCT; 34°53'N, 124°30'W; sounding, 2150 fm; wind, 040°, force 5; weather, partly cloudy; sea, high; wire angle, 25°, 20°.

0	14.00	33.12	5.97	320	0	14.00	33.12	5.97	24.76	320	0.00
8	14.03	33.11	5.87	321	10	14.03	33.12	5.87	24.75	321	0.03
26	14.00	33.15	5.95	318	20	14.01	33.14	5.93	24.77	319	0.06
53	13.82	33.22	5.88	309	30	13.99	33.16	5.94	24.80	316	0.10
61	13.45	33.24	5.78	300	50	13.84	33.21	5.88	24.86	310	0.16
69	12.04	33.30	5.65	270	75	11.60	33.30	5.64	25.37	262	0.23
82	11.22	33.30	5.61	255	100	9.88	33.33	4.74	25.69	231	0.29
94	10.22	33.31	4.93	238	150	8.80	33.69	3.73	26.15	188	0.40
105	9.72	33.35	4.67	227	200	8.11	33.92	3.46	26.44	160	0.48
121	9.48	33.56	3.92	208	250	7.43	34.05	1.90	26.63	142	0.56
137	9.02	33.68	3.54	192	300	7.25	34.13	1.28	26.72	133	0.63
161	8.62	33.71	3.82	184	400	6.42	34.14	0.93	26.84	122	0.77
181	8.37	33.86	3.77	169	500	6.02	34.17	0.73	26.92	115	0.89
241	7.54	34.02	2.19	145							
310	7.22	34.14	1.25	132							
411	6.30	34.14a)	0.89	120							
542	5.90	34.26	0.52	106							

73.55 BLACK DOUGLAS; March 1, 1958; 1300, 1340 GCT; 35°27.5'N, 121°37.5'W; sounding, 530 fm; wind, calm; weather, clear; sea, rough; wire angle, 08°, 11°.

0	13.86	33.31		303	0	13.86	33.31		24.94	303	0.00
9	13.90	33.31		304	10	13.91	33.31		24.93	304	0.03
29	13.93	33.33		303	20	13.93	33.32		24.93	304	0.06
58	13.24	33.55b)		274	30	13.93	33.34		24.94	303	0.09
67	11.58	33.51		246	50	13.82	33.44		25.04	293	0.15
75	11.04	33.53		235	75	11.04	33.53		25.65	235	0.22
88	10.63	33.59		224	100	10.30	33.74		25.94	207	0.27
101	10.26	33.75		206	150	9.40	33.95		26.25	178	0.37
114	9.88	33.80		196	200	8.55	34.04		26.46	158	0.46
131	9.64	33.86		188	250	8.14	34.10		26.58	147	0.53
148	9.43	33.93		180	300	7.78	34.15		26.66	139	0.61
174	9.06	34.02		168	400	6.88	34.22		26.84	122	0.74
					500	6.08	34.27		26.99	108	0.86
200	8.55	34.04		158							
248	8.14	34.10		148							
324	7.57	34.17		134							
423	6.66	34.23		118							
553	5.86	34.29		104							

a) Possible evaporation; value falls on property curve.

b) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T}{}_{3}^{-5}$ 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T}{}_{3}^{-5}$ 10 cm/g	ΔD dyn. m
BLACK DOUGLAS; March 1, 1958; 0615 GCT; 35°18'N, 121°58.5'W; sounding, 1300 fm; wind, 360°, force 7; weather, partly cloudy; sea, high; wire angle, 32°.											73.60
0	14.10	33.46		297	0	14.10	33.46		25.00	297	0.00
8	14.07	33.40		300	10	14.07	33.40		24.96	300	0.03
29	14.10	33.41		300	20	14.08	33.41		24.96	300	0.06
53	14.08	33.44		298	30	14.10	33.41		24.96	300	0.09
61	13.17	33.53		273	50	14.09	33.43		24.98	299	0.15
72	12.04	33.53		253	75	11.83	33.55		25.51	248	0.22
78	11.76	33.57		244	100	10.33	33.61		25.83	218	0.28
92	10.68	33.65		221	150	9.62	33.90		26.17	186	0.38
102	10.26	33.60		217	200	9.02	34.04		26.39	165	0.47
115	10.16	33.73		206	250	8.50	34.13		26.54	151	0.55
132	9.97	33.84		194	300	7.87	34.18		26.67	138	0.62
152	9.60	33.91		184	400	6.78	34.22		26.86	120	0.76
172	9.36	33.98		174	500	(6.01)	(34.26)		(26.99)	(108)	(0.88)
214	8.90	34.06		162							
278	8.16	34.17		143							
364	7.16	34.20		126							
486	6.14	34.25		110							
BLACK DOUGLAS; March 3, 1958; 0249 GCT; 34°19'N, 124°06'W; sounding, 2300 fm; wind, 020°, force 4; weather, clear; sea, high; wire angle, 05°.											73.90
0	14.22	33.22	5.41a)	317	0	14.22	33.22	5.41	24.79	317	0.00
10	14.21	33.21	5.31	317	10	14.21	33.21	5.31	24.79	317	0.03
34	14.14	33.22	5.27	315	20	14.18	33.22	5.30	24.80	316	0.06
44	14.13	33.24	5.49	314	30	14.16	33.22	5.28	24.80	316	0.10
58	13.10	33.31	3.93	288	50	13.99	33.26	5.40	24.86	310	0.16
68	11.56	33.32	5.43	260	75	10.98	33.31	5.01	25.48	251	0.23
77	10.82	33.31	4.87	248	100	9.87	33.58	3.18	25.88	213	0.29
94	10.14	33.57	3.04	217	150	8.94	33.80	3.26	26.21	182	0.39
113	9.40	33.58	3.93	205	200	8.45	34.02	1.44	26.46	158	0.47
126	9.29	33.69	3.76	195	250	7.82	34.09	1.29	26.61	144	0.55
148	8.98	33.78	3.31	183	300	7.30	34.14	1.83	26.72	133	0.62
184	8.64	33.98	2.18	164	400	6.42	34.22	1.23	26.90	116	0.75
220	8.19	34.05	0.77	152	500	5.85	34.27	0.80	27.02	105	0.87
274	7.56	34.12	1.83	138	600	5.28	34.33	0.53	27.13	94	0.97
356	6.74	34.19	1.47	122							
462	6.03	34.25	0.92	109							
602	5.24	34.33	0.51	94							
BLACK DOUGLAS; February 28, 1958; 1837 GCT; 34°54.5'N, 121°13'W; sounding, 300 fm; wind, 360°, force 2; weather, clear; sea, very rough; wire angle, 15°.											77.55
0	14.34	33.42	5.64	304	0	14.34	33.42	5.64	24.92	304	0.00
9	14.34	33.41	5.79	305	10	14.34	33.41	5.80	24.91	305	0.03
28	14.30	33.39	5.88	306	20	14.33	33.41	5.84	24.91	305	0.06
38	14.31	33.42	7.50u	304	30	14.30	33.40	5.86	24.91	305	0.09
47	14.20	33.40	5.81	303	50	14.00	33.41	5.72	24.98	298	0.15
56	13.25	33.42	5.42	283	75	12.26	33.42	5.17	25.33	266	0.22
65	12.42	33.41	5.24	269	100	10.52	33.42	4.72	25.66	234	0.29
78	12.20	33.42	5.16	264	150	9.54	33.78	3.27	26.10	192	0.39
91	11.46	33.41	4.83	252	200	9.01	34.06	2.04	26.40	164	0.48
104	10.32	33.43	4.71	230	250	8.65	34.14	1.49	26.53	151	0.56
124	9.94	33.60	3.98	212	300	8.27	34.18	1.32	26.62	143	0.64
149	9.56	33.75	3.28	195	400	7.23	34.23	0.97	26.80	126	0.78
178	9.32	33.98	2.68	174	500	(6.26)	(34.32)	(0.91)	(27.01)	(106)	(0.90)
221	8.86	34.09	1.74	159							
289	8.37	34.18	1.36	145							
377	7.50	34.21	1.03	131							
495	6.33	34.31	0.91	108							

a) Unusual oxygen distribution on this station. Titration was checked carefully aboard ship. Compare with Station 77.90.

SIO

CCOFI 5803

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T}^{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T}^{-5} 10^3 cm/g	ΔD dyn. m

77.60 BLACK DOUGLAS; February 28, 1958; 2230 GCT; 34°44'N, 121°34'W; sounding, 550 fm; wind, 320°, force 7; weather, partly cloudy; sea, high; wire angle, 17°.

0	14.29	33.36	5.76	308	0	14.29	33.36	5.76	24.88	308	0.00
9	14.28	33.37	5.86	307	10	14.28	33.37	5.86	24.89	307	0.03
33	14.24	33.33	5.87	309	20	14.25	33.35	5.86	24.87	309	0.06
61	13.98	33.43	5.80	296	30	14.24	33.35	5.86	24.87	309	0.09
70	13.37	33.44	5.44	284	50	14.20	33.37	5.85	24.90	306	0.15
84	12.02	33.42	5.02	261	75	12.96	33.43	5.26	25.22	276	0.23
92	10.88	33.40	4.64	242	100	10.63	33.46	4.37	25.67	233	0.29
110	10.44	33.55	4.13	224	150	9.43	33.80	3.11	26.12	190	0.40
123	10.00	33.64	3.68	210	200	9.04	34.03	2.24	26.38	166	0.49
141	9.62	33.77	3.27	195	250	8.48	34.13	1.62	26.54	150	0.57
163	9.15	33.84	3.02	182	300	8.00	34.19	1.27	26.66	139	0.64
190	9.15	34.00	2.47	170	400	6.83	34.19	0.99	26.82	124	0.78
216	8.84	34.06	2.06	161	500	6.25	34.22	0.71	26.93	113	0.90
269	8.30	34.18	1.40	144	600	(5.80)	(34.30)		(27.05)	(102)	(1.02)
349	7.33	34.18	1.14	130							
453	6.50	34.20	0.85	118							
590	5.82	34.29	0.43	103							

77.90 BLACK DOUGLAS; March 3, 1958; 0755, 0820 GCT; 33°49'N, 123°42'W; sounding, 2440 fm; wind, 360°, force 4; weather, clear; sea, high; wire angle, 08°, 08°.

0	14.17	33.13	5.58a)	322	0	14.17	33.13	5.58	24.74	322	0.00
10	14.16	33.14	5.56	321	10	14.16	33.14	5.56	24.75	321	0.03
29	14.16	33.21	5.56	316	20	14.16	33.18	5.56	24.77	318	0.06
56	13.51	33.44	5.56	286	30	14.16	33.22	5.56	24.80	316	0.10
64	12.77	33.42	5.12	274	50	13.97	33.35	5.56	24.95	302	0.16
74	11.39	33.37	4.66	253	75	11.25	33.37	4.63	25.47	252	0.23
87	9.84	33.37	4.45	228	100	9.88	33.55	3.64	25.86	215	0.29
100	9.88	33.55	3.64	215	150	9.12	33.83	2.45	26.20	182	0.39
113	9.22	33.55	3.63	205	200	8.00	33.94	3.05	26.47	157	0.47
					250	7.73	34.10	1.26	26.63	142	0.55
131	9.07	33.65	3.24	195	300	7.22	34.12	1.07	26.72	133	0.62
148	9.14	33.81	2.70	184	400	6.30	34.17	0.69	26.88	118	0.75
175	8.81	33.96	2.24	168	500	5.70	34.21	0.57	26.99	108	0.87
196	8.04	33.93	3.07	159							
245	7.76	34.09b)	1.28	143							
322	6.96	34.13	0.96	129							
424	6.17	34.18	0.65	115							
556	5.34	34.25	0.56	101							

80.51 BLACK DOUGLAS; March 4, 1958; 1637 GCT; 34°26.5'N, 120°32.5'W; sounding, 42 fm; wind, 030°, force 6; weather, clear; sea, rough; wire angle, 02°.

0	14.15	33.57	5.49	290	0	14.15	33.57	5.49	25.07	290	0.00
10	14.13	33.57	5.48	289	10	14.13	33.57	5.48	25.08	289	0.03
29	14.03	33.57	5.33	287	20	14.12	33.57	5.45	25.08	289	0.06
49	13.42	33.58	4.87	275	30	14.02	33.57	5.30	25.10	287	0.09
68	11.70	33.62	3.99	240	50	13.32	33.58	4.83	25.25	273	0.14

a) Unusual oxygen distribution on this station. Titration was checked carefully aboard ship. Compare with Station 73.90.

b) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T $^{-5}_{10}$ cm^3/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T $^{-5}_{10}$ cm^3/g	ΔD dyn. m
BLACK DOUGLAS; March 4, 1958; 1308 GCT; 34°19'N, 120°48'W; sounding, 414 fm; wind, 020°, force 5; weather, clear; sea, rough; wire angle, 23°.											80.55
0	14.26	33.50	5.91	297	0	14.26	33.50	5.91	25.00	297	0.00
8	14.26	33.53	5.94	295	10	14.26	33.52	5.94	25.02	295	0.03
27	14.26	33.48	5.97	298	20	14.26	33.50	5.95	25.00	297	0.06
54	13.46	33.54	5.12	278	30	14.26	33.48	5.95	24.98	298	0.09
63	12.50	33.54	4.62	261	50	13.95	33.51	5.59	25.06	290	0.15
72	11.74	33.53	4.43	247	75	11.41	33.54	4.30	25.58	241	0.22
84	10.82	33.58	3.93	228	100	10.62	33.72	3.34	25.86	215	0.27
97	10.70	33.71	3.38	216	150	9.59	33.87	2.77	26.16	186	0.37
109	10.39	33.73	3.24	210	200	9.02	34.08	1.92	26.42	162	0.46
126	10.14	33.78	2.99	202	250	8.23	34.14	1.59	26.58	146	0.54
142	9.76	33.85	2.83	190	300	7.42	34.11	1.47	26.68	137	0.62
167	9.24	33.95	2.50	175	400	6.88	34.22	0.77	26.84	122	0.75
188	9.18	34.04	2.17	168	500	6.26	34.28	0.45	26.97	109	0.87
233	8.54	34.14	1.66	150							
307	7.38	34.11	1.44	136							
401	6.88	34.22	0.77	122							
526	6.04	34.29	0.43	106							
BLACK DOUGLAS; March 4, 1958; 0902 GCT; 34°09'N, 121°09'W; sounding, 1200 fm; wind, 060°, force 3; weather, partly cloudy; sea, moderate; wire angle, 10°.											80.60
0	14.36	33.39	5.63	307	0	14.36	33.39	5.63	24.89	307	0.00
9	14.36	33.40	5.64	306	10	14.36	33.40	5.64	24.90	306	0.03
28	14.34	33.38	5.59	307	20	14.36	33.39	5.62	24.89	307	0.06
58	13.82	33.45	5.59	292	30	14.34	33.38	5.59	24.89	307	0.09
67	13.00	33.41	5.15	280	50	14.28	33.39	5.59	24.90	306	0.15
76	11.88	33.41	4.85	259	75	12.03	33.41	4.88	25.37	262	0.22
89	10.78	33.42	4.69	239	100	10.30	33.41	4.52	25.69	231	0.29
104	10.08	33.41	4.41	229	150	9.03	33.70	3.36	26.11	191	0.39
117	9.53	33.49	4.20	213	200	8.74	34.01	2.35	26.41	163	0.48
134	9.24	33.63	3.72	199	250	8.05	34.09	1.92	26.58	147	0.56
152	9.02	33.71	3.36	190	300	7.40	34.14	1.53	26.71	134	0.63
179	8.93	33.93	2.56	172	400	6.61	34.26	0.74	26.91	115	0.76
201	8.74	34.01	2.35	163	500	6.02	34.31	0.59	27.03	104	0.88
249	8.07	34.09	1.94	148							
326	7.09	34.16	1.28	129							
426	6.48	34.28	0.68	112							
556	5.64	34.33	0.58	98							
BLACK DOUGLAS; March 4, 1958; 0315 GCT; 33°49'N, 121°51'W; sounding, 2000 fm; wind, 160°, force 5; weather, rain; sea, very rough; wire angle, 07°.											80.70
0	14.28	33.21	5.55	319	0	14.28	33.21	5.55	24.77	319	0.00
10	14.28	33.22	5.60	318	10	14.28	33.22	5.60	24.78	318	0.03
29	14.28	33.24	5.58	317	20	14.28	33.22	5.59	24.78	318	0.06
58	14.20	33.26	5.58	313	30	14.28	33.24	5.58	24.80	316	0.10
68	13.76	33.34	5.58	299	50	14.25	33.25	5.58	24.81	315	0.16
78	12.86	33.36	5.56	280	75	13.15	33.36	5.57	25.10	287	0.23
92	11.50	33.33	5.14	258	100	10.76	33.34	4.93	25.54	245	0.30
106	10.39	33.35	4.86	238	150	8.94	33.70	3.88	26.14	188	0.41
120	9.54	33.42	4.44	219	200	8.62	34.00	2.26	26.42	162	0.50
138	9.02	33.58	4.11	200	250	7.82	34.09	1.95	26.61	144	0.58
156	8.89	33.78a)	3.15	182	300	7.32	34.15	1.51	26.73	132	0.65
183	8.79	33.93	2.50	170	400	6.60	34.23	0.80	26.90	117	0.78
206	8.48	34.02	2.24	159	500	5.99	34.28	0.48	27.01	106	0.89
256	7.76	34.10	1.91	142							
333	7.06	34.19	1.23	126							
434	6.33	34.25	0.61	112							
566	5.64	34.31	0.39	100							

a) Possible evaporation; value falls on property curve.

SIO

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5803

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

80.80 BLACK DOUGLAS; March 3, 1958; 2124 GCT; 33°29'N, 122°32'W; sounding, 2400 fm; wind, 270°, force 5; weather, rain; sea, very rough; wire angle, 18°.

0	15.60	33.46	5.62	328	0	15.60	33.46	5.62	24.67	328	0.00
8	15.58	33.39	5.62	332	10	15.57	33.40	5.66	24.64	331	0.03
28	15.54	33.44	5.74	328	20	15.56	33.40	5.69	24.64	331	0.07
55	15.52	33.42	5.63	329	30	15.54	33.43	5.73	24.67	328	0.10
64	15.54	33.42	5.75	329	50	15.50	33.42	5.67	24.66	329	0.16
72	15.48	33.44	5.68	327	75	15.47	33.44	5.68	24.69	326	0.25
85	14.16	33.46	5.76	298	100	12.38	33.39	5.37	25.28	270	0.32
98	12.66	33.40	5.46	274	150	9.31	33.62	4.02	26.02	200	0.44
110	11.30	33.35	5.18	253	200	8.68	33.89	2.95	26.33	171	0.53
128	10.00	33.43	4.82	225	250	7.96	34.03	2.35	26.54	150	0.62
143	9.42	33.55	4.22	208	300	7.39	34.09	1.80	26.67	138	0.69
169	9.15	33.68	3.66	194	400	6.50	34.13	1.06	26.82	124	0.83
190	8.81	33.84	3.15	177	500	5.80	34.21	0.76	26.98	109	0.95
237	8.14	34.00	2.49	155							
310	7.32	34.10	1.72	136							
405	6.45	34.13	1.00	123							
531	5.69	34.23	0.74	106							

80.90 BLACK DOUGLAS; March 3, 1958; 1355 GCT; 33°21.5'N, 133°21'W; sounding, 2400 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 10°.

0	14.55	33.06	5.91	335	0	14.55	33.06	5.91	24.60	335	0.00
10	14.54	33.06	5.88	335	10	14.54	33.06	5.88	24.60	335	0.03
29	14.56	33.05	6.05	336	20	14.55	33.06	6.00	24.60	335	0.07
57	14.52	33.12	5.94	330	30	14.56	33.06	6.04	24.60	335	0.10
66	13.52	33.20	5.91	304	50	14.54	33.10	5.99	24.63	332	0.17
76	12.83	33.30	5.79	284	75	12.90	33.30	5.80	25.12	286	0.24
89	11.95	33.32	5.67	266	100	10.62	33.28	5.35	25.52	247	0.31
103	10.26	33.28	5.25	241	150	8.98	33.66	3.95	26.10	192	0.42
116	9.48	33.35	4.85	223	200	8.28	33.95	2.63	26.43	161	0.51
134	9.26	33.51	4.35	208	250	7.59	34.04	2.14	26.60	145	0.59
153	8.94	33.68	3.90	190	300	7.13	34.09	1.71	26.70	135	0.66
180	8.57	33.84	3.01	173	400	6.29	34.17	0.92	26.89	117	0.79
202	8.25	33.96	2.61	160	500	5.57	34.25	0.54	27.04	103	0.91
252	7.58	34.04	2.13	144							
330	6.88	34.12	1.41	129							
432	6.00	34.20	0.70	112							
564	5.18	34.29	0.42	96							

83.80 BLACK DOUGLAS; March 6, 1958; 0247 GCT; 32°54.5'N, 122°07.5'W; sounding, 2200 fm; wind, 320°, force 5; weather, overcast; sea, very rough; wire angle, 15°.

0	14.49	33.37	5.81	311	0	14.49	33.37	5.81	24.85	311	0.00
9	14.49	33.37	5.91	311	10	14.48	33.37	5.90	24.85	311	0.03
28	14.46	33.37	5.76	311	20	14.47	33.37	5.83	24.85	311	0.06
56	14.37	33.40	5.76	306	30	14.45	33.38	5.76	24.86	310	0.09
64	14.22	33.40	5.84	304	50	14.38	33.40	5.76	24.89	307	0.16
73	13.62	33.40	5.58	292	75	13.59	33.40	5.57	25.06	291	0.23
86	13.32	33.44	5.55	283	100	11.92	33.40	5.02	25.39	260	0.30
99	12.10	33.40	5.15	264	150	9.03	33.68	3.53	26.10	192	0.41
112	10.59	33.44	4.46	234	200	8.22	33.95	2.58	26.44	160	0.50
128	9.76	33.53	4.11	214	250	7.51	34.01	2.02	26.60	145	0.58
145	9.20	33.64	3.68	198	300	7.00	34.09	1.58	26.73	132	0.65
170	8.66	33.78	3.28	179	400	6.32	34.14	0.86	26.85	121	0.78
192	8.36	33.93	2.72	163	500	5.88	34.18	0.50	26.94	112	0.90
239	7.63	34.00	2.12	148							
312	6.91	34.11	1.50	130							
408	6.24	34.14	0.77	120							
535	5.64	34.25	0.42	104							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
BLACK DOUGLAS; March 6, 1958; 0912 GCT; 32°19.5'N, 121°43'W; sounding, 2100 fm; wind, 290°, force 7; weather, rain; sea, high; wire angle, 28°.											87.80
0	14.92	33.40		318	0	14.92	33.40		24.78	318	0.00
8	14.93	33.40		317	10	14.95	33.41		24.79	317	0.03
26	14.96	33.44		315	20	14.96	33.43		24.80	316	0.06
52	14.89	33.40		317	30	14.96	33.43		24.80	316	0.10
60	14.10	33.44		298	50	14.90	33.41		24.79	317	0.16
68	13.92	33.52		289	75	13.77	33.52		25.12	286	0.23
80	13.64	33.51		284	100	12.04	33.44		25.38	260	0.30
92	12.93	33.45		275	150	9.17	33.65		26.06	196	0.42
103	11.71	33.44		253	200	8.61	33.89		26.34	170	0.51
120	10.00	33.50		220	250	7.88	34.03		26.55	149	0.59
135	9.49	33.54		210	300	7.41	34.08		26.66	139	0.66
157	9.08	33.67		194	400	6.56	34.24		26.91	116	0.80
178	8.87	33.79		182	500	5.91	34.33		27.05	102	0.91
221	8.22	33.98		158							
291	7.49	34.07		141							
384	6.70	34.22		119							
507	5.89	34.33		101							
BLACK DOUGLAS; March 7, 1958; 2145 GCT; 33°24.5'N, 117°55'W; sounding, 341 fm; wind, 140°, force 4; weather, partly cloudy; sea, rough; wire angle, 12°.											90.30
0	15.44	33.58	5.80	316	0	15.44	33.58	5.80	24.80	316	0.00
9	15.41	33.54	5.85	318	10	15.41	33.55	5.85	24.79	317	0.03
28	15.30	33.58	5.83	312	20	15.37	33.57	5.84	24.82	314	0.06
56	14.68	33.55	5.37	302	30	15.30	33.58	5.83	24.84	312	0.09
64	13.26	33.55	4.89	274	50	15.24	33.58	5.79	24.85	311	0.16
74	12.12	33.55	4.40	252	75	12.03	33.55	4.37	25.48	252	0.23
87	11.22	33.62	4.07	232	100	10.59	33.73	3.55	25.88	213	0.29
100	10.59	33.73	3.55	213	150	9.66	33.96	2.58	26.22	181	0.39
114	10.26	33.82	3.22	201	200	9.05	34.17	1.99	26.48	156	0.47
131	9.96	33.87	2.86	192	250	8.72	34.28	1.44	26.62	143	0.55
149	9.68	33.96	2.59	181	300	8.34	34.30	1.20	26.70	135	0.62
176	9.36	34.06	2.38	169	400	7.33	34.29	0.79	26.84	122	0.75
198	9.07	34.16	2.01	157	500	6.52	34.31	0.53	26.96	110	0.87
247	8.76	34.27	1.48	144							
324	8.12	34.30	1.09	132							
424	7.04	34.29	0.70	119							
555	6.16	34.35	0.43	103							
BLACK DOUGLAS; March 7, 1958; 1703 GCT; 33°11'N, 118°23.5'W; sounding, 645 fm; wind, 330°, force 3; weather, partly cloudy; sea, very rough; wire angle, 08°.											90.37
0	15.20	33.57	5.29	311	0	15.20	33.57	5.29	24.85	311	0.00
10	15.18	33.55	5.29	312	10	15.18	33.55	5.29	24.84	312	0.03
29	15.19	33.59	5.29	309	20	15.18	33.57	5.29	24.85	311	0.06
53	14.60	33.56	5.26	300	30	15.19	33.59	5.29	24.87	309	0.09
63	13.16	33.48	5.03	277	50	14.86	33.57	5.27	24.93	304	0.15
72	11.80	33.48	4.71	252	75	11.58	33.50	4.52	25.53	247	0.22
81	11.32	33.63	3.91	232	100	10.85	33.67	3.48	25.79	222	0.28
95	10.98	33.66	3.58	224	150	9.79	34.00	2.37	26.23	180	0.39
107	10.74	33.68	3.42	219	200	9.05	34.10	2.13	26.43	161	0.47
125	10.33	33.75	3.21	207	250	8.55	34.19	1.61	26.58	146	0.55
143	9.88	33.93	2.59	186	300	8.12	34.23	1.41	26.67	138	0.62
170	9.60	34.05	2.25	173	400	7.27	34.31	0.61	26.86	120	0.76
187	9.24	34.07	2.34	167	500	6.35	34.33	0.61	27.00	107	0.88
232	8.74	34.17	1.76	151							
304	8.08	34.23	1.40	137							
394	7.32	34.31	0.61	120							
515	6.20	34.33	0.61	105							

S10

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

90.45 BLACK DOUGLAS; March 12, 1958; 1915 GCT; 32°54.5'N, 118°56'W; sounding, 900 fm; wind, 240°, force 3; weather, partly cloudy; sea, rough; wire angle, 08°.

0	15.17	33.57	5.78	310	0	15.17	33.57	5.78	24.86	310	0.00
9	15.12	33.57	5.76	310	10	15.10	33.57	5.76	24.86	310	0.03
28	15.08	33.57	5.80	310	20	15.09	33.57	5.78	24.86	310	0.06
38	15.03	33.57	5.80	308	30	15.08	33.57	5.80	24.88	308	0.09
48	12.97	33.45	5.36	275	50	12.90	33.45	5.32	25.24	274	0.15
58	12.46	33.44	4.79	267	75	11.45	33.50	4.63	25.54	246	0.22
67	12.16	33.46	4.98	260	100	10.59	33.60	3.87	25.78	222	0.28
80	11.11	33.51	4.29	238	150	9.62	33.94	2.44	26.21	182	0.38
94	10.62	33.58	3.96	225	200	9.04	34.11	1.87	26.44	160	0.46
108	10.46	33.72	3.38	212	250	8.57	34.18	1.48	26.57	147	0.54
129	9.92	33.87	2.72	192	300	8.09	34.23	1.17	26.67	138	0.62
156	9.57	33.96	2.36	179	400	7.29	34.26	0.69	26.82	124	0.75
187	9.20	34.07	2.01	166	500	6.43	34.30	0.46	26.96	110	0.87
232	8.76	34.16	1.63	152							
303	8.06	34.23	1.17	137							
393	7.39	34.25	0.74	126							
513	6.36	34.31	0.44	108							

90.55 BLACK DOUGLAS; March 12, 1958; 1308 GCT; 32°35'N, 119°37'W; sounding, 550 fm; wind, 320°, force 2; weather, rain; sea, moderate; wire angle, missing.

0	14.12	33.50	5.67	294	0	14.12	33.50	5.67	25.03	294	0.00
9	14.10	33.51	5.83	293	10	14.10	33.51	5.82	25.04	293	0.03
28	14.11	33.53	5.81	293	20	14.10	33.51	5.81	25.04	293	0.06
55	14.10	33.51	5.83	293	30	14.10	33.52	5.82	25.04	293	0.09
63	14.11	33.54	5.66	291	50	14.10	33.51	5.83	25.04	293	0.15
72	14.11	33.52	5.77	293	75	14.10	33.52	5.60	25.04	293	0.22
84	12.93	33.44	5.04	276	100	10.76	33.49	4.43	25.66	234	0.29
96	11.22	33.47	4.63	243	150	9.80	33.82	2.86	26.09	193	0.40
108	10.32	33.55	4.10	222	200	8.86	34.03	2.23	26.40	164	0.48
125	10.20	33.71	3.55	208	250	8.48	34.16	1.69	26.57	148	0.56
141	9.98	33.79	3.02	198	300	7.99	34.21	1.32	26.68	138	0.64
166	9.50	33.86	2.71	186	400	7.06	34.27	0.73	26.86	120	0.77
187	9.08	33.96	2.46	172	500	6.35	34.32	0.69	26.99	108	0.89
232	8.62	34.12	1.87	153							
305	7.97	34.22	1.30	136							
400	7.06	34.27	0.73	120							
528	6.12	34.33	0.69	104							

90.60 BLACK DOUGLAS; March 12, 1958; 0914, missing GCT; 32°26.5'N, 119°58'W; sounding, 800 fm; wind, 300°, force 5; weather, rain; sea, very rough; wire angle, 19°, missing.

0	14.62	33.51	5.54	304	0	14.62	33.51	5.54	24.92	304	0.00
7	14.63	33.51	5.66	304	10	14.62	33.52	5.64	24.93	303	0.03
24	14.60	33.52	5.61	302	20	14.60	33.52	5.62	24.93	303	0.06
49	14.56	33.51	5.54	303	30	14.59	33.51	5.60	24.94	302	0.09
57	14.52	33.51	5.53	302	50	14.54	33.51	5.54	24.94	302	0.15
66	12.76	33.46	5.12	270	75	12.17	33.43	5.08	25.36	262	0.22
79	12.00	33.42	5.04	260	100	11.00	33.46	4.55	25.60	239	0.29
91	11.66	33.42	4.88	254	150	9.39	33.76	3.44	26.11	191	0.39
104	10.70	33.49	4.44	233	200	8.78	34.05	2.28	26.43	161	0.48
					250	8.41	34.10	1.95	26.53	152	0.56
121	10.05	33.58	4.01	216	300	8.00	34.18	1.42	26.66	140	0.64
139	9.58	33.70	3.67	199	400	7.13	34.25	0.92	26.83	123	0.78
165	9.18	33.82	3.09	184	500	6.42	34.29	0.80	26.96	110	0.90
187	8.91	34.01	2.48	166							
235	8.53	34.09	2.05	154							
310	7.94	34.20	1.32	137							
409	7.02	34.25	0.90	122							
538	6.16	34.32	0.77	105							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m

BLACK DOUGLAS; March 12, 1958; 0250 GCT; 32°04.5'N, 120°39'W; sounding, 2100 fm; wind, 310°, force 5; weather, rain; sea, high; wire angle, 09°. 90.70

0	15.39	33.59	5.36	314	0	15.39	33.59	5.36	24.82	314	0.00
10	15.38	33.58 a)	5.52	314	10	15.38	33.58	5.52	24.82	314	0.03
34	15.36	33.59	5.50	313	20	15.38	33.58	5.51	24.82	314	0.06
63	15.38	33.58	5.37	314	30	15.37	33.58	5.51	24.82	314	0.09
73	15.32	33.60	5.37	312	50	15.36	33.59	5.42	24.83	313	0.16
87	12.29	33.41	5.04	266	75	15.26	33.60	5.35	24.85	311	0.23
96	11.86	33.41	4.92	258	100	11.62	33.42	4.82	25.46	254	0.31
114	10.56	33.48	4.16	230	150	9.32	33.72	3.40	26.09	193	0.42
128	10.19	33.58	3.66	217	200	9.00	34.10	2.08	26.44	160	0.51
145	9.48	33.70	3.42	197	250	8.37	34.16	1.52	26.59	146	0.59
168	9.10	33.78	3.38	186	300	7.79	34.20	1.16	26.70	136	0.66
195	9.04	34.08	2.28	162	400	6.86	34.25	0.77	26.86	120	0.79
222	8.74	34.14	1.73	153	500	6.03	34.28	0.58	27.00	107	0.91
276	8.02	34.18	1.32	140	600	5.47	34.33	0.48	27.10	97	1.02
358	7.22	34.23	0.90	126							
463	6.27	34.27	0.61	110							
603	5.44	34.33	0.48	96							

BLACK DOUGLAS; March 11, 1958; 1950 GCT; 31°45'N, 121°19'W; sounding, 2000 fm; wind, 320°, force 5; weather, rain; sea, high; wire angle, 10°. 90.80

0	15.05	33.58	5.63	308	0	15.05	33.58	5.63	24.88	308	0.00
10	15.02	33.55	5.59	309	10	15.02	33.55	5.59	24.87	309	0.03
34	15.04	33.56	5.26	309	20	15.02	33.55	5.46	24.87	309	0.06
62	15.00	33.55	5.22	309	30	15.03	33.55	5.35	24.87	309	0.09
71	14.99	33.55	-	309	50	15.01	33.55	5.23	24.87	309	0.15
84	13.02	33.37	5.32	283	75	14.40	33.48	5.22	24.96	301	0.23
94	12.00	33.37	5.27	264	100	11.58	33.38	5.18	25.43	256	0.30
112	10.75	33.40	4.93	240	150	9.12	33.69	3.43	26.09	193	0.42
125	9.96	33.48	4.26	221	200	8.32	33.98	2.52	26.44	160	0.50
142	9.32	33.62	3.66	201	250	7.51	34.08	1.90	26.65	140	0.58
164	8.84	33.80	3.01	180							
191	8.42	33.93	2.62	165							
217	8.01	34.04	2.14	150							
272	7.22	34.09	1.81	136							
385p	6.46	34.17	0.96								

BLACK DOUGLAS; March 11, 1958; 1110 GCT; 31°18'N, 121°42.5'W; sounding, 2000 fm; wind, 300°, force 6; weather, partly cloudy; sea, very rough; wire angle, 35°. 90.90

0	15.12	33.47	5.46	317	0	15.12	33.47	5.46	24.79	317	0.00
8	15.10	33.40	5.42	322	10	15.10	33.39	5.42	24.74	322	0.03
25	15.10	33.38	5.40	323	20	15.10	33.39	5.41	24.74	322	0.06
50	14.98	33.39	5.46	320	30	15.09	33.38	5.41	24.74	322	0.10
58	14.81	33.31	5.38	322	50	14.98	33.39	5.46	24.76	320	0.16
66	14.66	33.31	5.43	319	75	14.54	33.30	5.45	24.79	317	0.24
78	14.49	33.30	5.46	316	100	12.37	33.44	5.18	25.33	265	0.31
90	14.04	33.43	5.34	298	150	9.46	33.56	3.98	25.94	208	0.44
102	12.21	33.44	5.18	263	200	8.58	33.89	2.93	26.34	170	0.53
117	11.40	33.40	5.04	251	250	7.92	33.97	2.36	26.50	154	0.62
133	10.24	33.43	4.62	230	300	7.29	34.03	1.97	26.64	141	0.69
157	9.28	33.59	3.86	203	400	6.40	34.16	0.76	26.86	120	0.83
178	8.87	33.75	3.31	184	500	5.76	34.25	0.73	27.01	106	0.94
222	8.28	33.94	2.68	162							
292	7.37	34.02	2.02	143							
384	6.47	34.14	0.80	122							
504	5.74	34.25	0.73	105							

a) Loose bottle cap; value falls on property curve.

SIO

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

107.50 BLACK DOUGLAS; March 20, 1958; 0315 GCT; 29°50.5'N, 117°23.5'W; sounding, 1350 fm; wind, 300°, force 3; weather, partly cloudy; sea, rough; wire angle, 17°.

0	16.26	33.61	5.70	331	0	16.26	33.61	5.70	24.64	331	0.00
9	16.26	33.64	5.71	329	10	16.25	33.63	5.69	24.66	329	0.03
28	16.14	33.61	5.68	328	20	16.18	33.62	5.68	24.66	329	0.06
51	15.96	33.58	5.68	326	30	16.10	33.60	5.68	24.68	327	0.10
60	15.99	33.63	5.62	323	50	15.97	33.59	5.68	24.68	327	0.16
68	15.99	33.62	5.60	324	75	15.97	33.59	5.63	24.72	324	0.24
78	15.92	33.59	5.66	324	100	13.23	33.48	5.44	25.20	278	0.32
90	14.35	33.55	5.66	295	150	11.01	33.82	3.40	25.88	214	0.45
102	13.16	33.48	5.42	277	200	9.78	34.02	2.51	26.25	178	0.55
119	11.86	33.46	5.17	255	250	8.56	34.08	2.14	26.49	155	0.63
135	10.86	33.44	4.94	239	300	7.62	34.13	1.51	26.67	138	0.71
154	11.02	33.84	3.24	212	400	6.55	34.16	0.97	26.84	122	0.84
176	10.60	34.00	2.57	193	500	(6.20)	(34.38)		(27.05)	(101)	(0.96)
218	9.22	34.04	2.46	168							
284	7.90	34.13	1.68	142							
370	6.74	34.13	1.15	126							
484	6.28	34.32	0.44	106							

107.60 BLACK DOUGLAS; March 19, 1958; 2145 GCT; 29°31'N, 118°03'W; sounding, 1800 fm; wind, 340°, force 3; weather, cloudy; sea, moderate; wire angle, 00°.

0	16.94	33.75	5.67	336	0	16.94	33.75	5.67	24.59	336	0.00
4	16.93	-	5.39		10	16.63	33.73	5.22	24.63	332	0.03
8	16.69	33.73	5.32	332	20	16.60	33.75	5.23	24.67	328	0.07
12	16.62	-	5.21		30	16.58	33.73	5.49	24.66	329	0.10
16	16.60	33.71	5.23	331	50	16.60	33.73	5.54	24.65	330	0.16
20	16.60	33.75	5.23	328	75	16.60	33.73	5.38	24.65	330	0.25
24	16.61	33.75	5.37	328	100	16.43	33.72	5.22	24.68	327	0.33
27	16.62	33.73	5.44	330	150	(11.00)	(33.71)	(3.60)	(25.79)	(222)	(0.47)
31	16.58	33.73	5.50	329							
35	16.60	33.73	5.53	330							
38	16.60	33.75	5.56	328							
42	16.60	33.73	5.59	330							
45	-	33.75	5.59								
49	-	33.75	5.56								
83	-	33.84	5.52								
126	12.70	33.51	5.05	266							
148	11.02	33.70	3.64	223							

110.50 STRANGER; March 19, 1958; 1106 GCT; 29°20.5'N, 117°05'W; sounding, 2000 fm; wind, 350°, force 4; weather, partly cloudy; sea, very rough; wire angle, 10°.

0	16.44	33.71	5.64	327	0	16.44	33.71	5.64	24.68	327	0.00
10	16.46	33.70	5.61	328	10	16.46	33.70	5.61	24.67	328	0.03
30	16.42	33.75	5.61	324	20	16.43	33.73	5.61	24.69	326	0.06
59	16.21	33.68	5.65	325	30	16.42	33.75	5.61	24.72	324	0.10
69	16.00	33.68	5.61	320	50	16.34	33.72	5.62	24.70	325	0.16
78	15.82	33.60	5.64	322	75	15.92	33.63	5.61	24.74	322	0.24
93	14.08	33.55	5.54	290	100	13.30	33.52	5.38	25.22	276	0.32
107	12.86	33.51	5.23	269							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T}^{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T}^{-5} 10^3 cm/g	ΔD dyn. m

STRANGER; March 19, 1958; 0558 GCT; 29°02.5'N, 117°40.5'W; sounding, 2000 fm; wind, 360°, force 4; weather, cloudy; sea, rough; wire angle, 15°. 110.60

0	16.60	33.66	5.60	335	0	16.60	33.66	5.60	24.60	335	0.00
10	16.66	33.70	5.58	333	10	16.66	33.70	5.58	24.62	333	0.03
29	16.43	33.65	5.57	332	20	16.57	33.68	5.58	24.63	332	0.07
58	16.40	33.64	5.54	331	30	16.43	33.65	5.57	24.64	331	0.10
68	16.40	33.64	5.49	332	50	16.40	33.65	5.55	24.64	331	0.17
77	16.36	33.68	5.55	328	75	16.38	33.67	5.54	24.66	329	0.25
91	15.30	33.57	5.49	313	100	14.46	33.52	5.40	24.98	299	0.33
105	14.02	33.51	5.33	292	150	11.26	33.66	3.98	25.70	230	0.46
119	12.66	33.53	4.66	264	200	9.15	33.84	3.29	26.21	182	0.56
138	11.78	33.61	4.24	242	250	8.38	33.99	2.43	26.45	159	0.65
156	11.00	33.68	3.75	224	300	7.98	34.12	1.77	26.61	144	0.73
181	9.60	33.70	3.59	199	400	7.24	34.27	0.76	26.83	123	0.87
203	9.10	33.86	3.18	180	500	6.50	34.33	0.46	26.98	108	0.99
251	8.35	33.99	2.41	158							
326	7.81	34.18	1.48	137							
425	7.04	34.29	0.67	119							
554	6.04	34.36	0.34	101							

STRANGER; March 17, 1958; 2030, 2104 GCT; 28°42'N, 116°40'W; sounding, 2000 fm; wind, calm; weather, partly cloudy; sea, slight; wire angle, 00°, 08°. 113.50

0	16.85	33.70	5.50	337	0	16.85	33.70	5.50	24.58	337	0.00
10	16.58	33.68	5.56	332	10	16.58	33.68	5.56	24.63	332	0.03
30	16.26	33.66	5.52	327	20	16.37	33.67	5.54	24.66	329	0.07
55	16.24	33.68	5.55	325	30	16.26	33.66	5.52	24.68	327	0.10
64	16.19	33.65	5.63	326	50	16.24	33.67	5.54	24.69	326	0.16
73	16.16	33.67	5.53	324	75	16.02	33.66	5.55	24.74	322	0.24
83	14.72	33.57	5.57	301	100	13.59	33.65	5.02	25.25	273	0.32
					150	11.06	33.88	3.13	25.92	210	0.44
101	13.58	33.66	4.56	272	200	10.06	34.19	1.95	26.32	171	0.54
115	12.96	33.75	3.79	253	250	9.36	34.30	1.35	26.54	151	0.62
133	11.86	33.86	3.14	225	300	8.95	34.42	0.85	26.70	136	0.70
149	11.20	33.88	3.17	212	400	7.82	34.41	0.36	26.86	120	0.83
171	10.42	33.94	2.72	195	500	6.73	34.39	0.36	27.00	107	0.95
193	10.13	34.13	2.00	176							
236	9.44	34.27	1.42	155							
307	8.89	34.42	0.75	135							
397	7.85	34.41	0.37	120							
517	6.56	34.38	0.36	105							

STRANGER; March 18, 1958; 0154 GCT; 28°24'N, 117°16'W; sounding, 2000+ fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 03°. 113.60

0	17.54	34.00	5.39	331	0	17.54	34.00	5.39	24.64	331	0.00
10	17.51	34.02	5.47	329	10	17.51	34.02	5.47	24.66	329	0.03
30	17.22	34.03	5.42	322	20	17.38	34.03	5.44	24.70	326	0.06
60	17.36	34.13	5.35	317	30	17.22	34.03	5.42	24.74	322	0.10
70	17.37	34.12	5.30	318	50	17.36	34.09	5.36	24.77	319	0.16
80	17.28	34.07	5.31	320	75	17.34	34.09	5.31	24.77	319	0.24

S10

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

117.50 STRANGER; March 16, 1958; 1602 GCT; 28°08'N, 116°15'W; sounding, 2000+ fm; wind, 320°, force 2; weather, cloudy; sea, slight; wire angle, 02°.

0	16.66	33.69	5.46	334	0	16.66	33.69	5.46	24.61	334	0.00
10	16.63	33.75	5.47	329	10	16.63	33.75	5.47	24.66	329	0.03
30	16.56	33.69	5.47	330	20	16.60	33.72	5.47	24.65	330	0.07
55	16.52	33.69	5.46	330	30	16.56	33.69	5.47	24.65	330	0.10
66p	16.56	33.73	5.52	328	50	16.50	33.69	5.46	24.65	330	0.16
71p	16.48	33.75	5.56	326	75	16.27	33.77	5.55	24.76	319	0.25
82p	15.69	33.82	5.42	303	100	13.40	33.65	5.17	25.29	269	0.32
93p	14.16	33.68	5.37	282	150	10.81	33.94	2.81	26.00	202	0.44
106p	12.92	33.64	4.96	261	200	10.09	34.21	1.98	26.34	169	0.54
120p	11.73	33.57	4.73	244	250	9.20	34.33	1.23	26.59	146	0.62
137p	11.12	33.76	3.66	220	300	8.66	34.40	0.86	26.72	133	0.69
155p	10.42	33.94	2.77	194	400	7.58	34.40	0.44	26.88	118	0.82
190p	10.10	34.15	1.99	174							
249p	9.20	34.33	1.23	146							
321p	8.48	34.42	0.72	129							
423p	7.22	34.38	0.38	114							

120.50 STRANGER; March 15, 1958; 0615 GCT; 27°34.5'N, 115°53.5'W; sounding, 2000+ fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 19°.

0	16.60	33.79	5.57	325	0	16.60	33.79	5.57	24.70	325	0.00
10	16.58	33.85	5.44	320	10	16.58	33.85	5.44	24.76	320	0.03
28	16.80	34.00	5.34	314	20	16.70	33.92	5.37	24.78	318	0.06
57	16.40	34.02	5.04	304	30	16.78	34.00	5.29	24.83	313	0.10
66	15.90	33.95	4.84	298	50	16.53	34.02	5.10	24.90	306	0.16
75	14.86	33.87	4.16	282	75	14.86	33.87	4.16	25.16	282	0.23
89	12.84	33.73	3.73	252	100	12.42	33.81	3.27	25.60	239	0.30
102	12.38	33.82	3.23	238	150	10.30	34.03	2.38	26.17	186	0.40
115	11.78	33.95	2.66	217	200	9.55	34.23	1.55	26.45	159	0.49
131	11.44	34.06	2.19	203	250	9.10	34.36	0.97	26.62	142	0.57
147	10.43	34.03	2.39	188	300	8.55	34.39	0.74	26.73	132	0.64
171	9.82	34.07	2.26	176	400	7.56	34.39	0.37	26.88	118	0.77
190	9.61	34.18	1.84	164	500	6.53	34.40	0.32	27.04	104	0.89
234	9.26	34.34	1.09	146							
304	8.52	34.39	0.73	132							
396	7.60	34.39	0.39	119							
519	6.31	34.40	0.32	101							

120.80 STRANGER; March 15, 1958; 1955 GCT; 26°39'N, 117°51'W; sounding, 2000+ fm; wind, calm; weather, clear; sea, slight; wire angle, 00°.

0	19.06	33.94	5.77	372	0	19.06	33.94	5.77	24.21	372	0.00
10	17.50	33.91	5.53	337	10	17.50	33.91	5.53	24.58	337	0.04
30	17.36	33.91	5.42	333	20	17.41	33.91	5.52	24.60	335	0.07
55	17.35	33.91	5.41	332	30	17.36	33.91	5.42	24.62	333	0.10
64	17.31	33.93	5.44	331	50	17.35	33.91	5.41	24.63	332	0.17
74	17.31	33.89	5.42	333	75	17.30	33.89	5.42	24.61	334	0.25
83	17.30	33.88	5.44	334							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δ_{T_3}	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

STRANGER; March 10, 1958; 0532, 0612 GCT; 24°55'N, 113°30.5'W; sounding, 2100 fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 03°, 04°. 137.40

0	19.32	34.57	5.52	332	0	19.32	34.57	5.52	24.64	332	0.00
10	19.36	34.56	5.04	333	10	19.36	34.56	5.04	24.62	333	0.03
30	19.26	34.57	5.09	330	20	19.30	34.56	5.06	24.64	332	0.07
59	19.16	34.55	5.00	329	30	19.26	34.57	5.09	24.65	330	0.10
68	16.91	34.19	4.18	303	50	19.18	34.56	5.04	24.66	329	0.16
78	14.33	33.89	3.77	270	75	15.38	33.99	3.92	25.13	284	0.24
92	12.88	33.87	3.12	243	100	12.78	33.94	2.95	25.64	236	0.31
106	12.68	34.15	1.94	219	150	11.27	34.28	1.24	26.19	184	0.41
119	12.04	34.23	1.58	202	200	11.03	34.58	0.48	26.45	159	0.50
138	11.96	34.34	1.09	191	250	10.70	34.60	0.28	26.54	151	0.58
155	11.25	34.34	1.22	179	300	10.00	34.59	0.26	26.66	140	0.66
183	10.20	34.27	1.62	167	400	8.42	34.54	0.20	26.86	120	0.79
					500	7.22	34.48	0.12	27.00	107	0.91
205	11.14	34.60	0.38	158							
255	10.66	34.60	0.28	150							
334	9.44	34.58	0.26	132							
437	7.99	34.51	0.17	115							
571	6.37	34.45	0.11	97							

STRANGER; March 7, 1958; 2109 GCT; 23°04.5'N, 111°02'W; sounding, 800 fm; wind, 310°, force 2; weather, partly cloudy; sea, moderate; wire angle, 07°. 150.25

0	22.44	34.71	5.29	402	0	22.44	34.71	5.29	23.90	402	0.00
10	22.12	34.72	5.04	393	10	22.12	34.72	5.04	23.99	393	0.04
30	21.78	34.71	5.02	384	20	21.97	34.72	5.02	24.04	388	0.08
45	20.64	34.63	5.56	360	30	21.78	34.71	5.02	24.08	384	0.12
55	20.39	34.70	3.61	349	50	20.52	34.64	4.26	24.38	356	0.19
65	20.05	34.85	3.31	330	75	19.68	34.83	2.95	24.74	322	0.28
75	19.68	34.83a)	2.95	322	100	15.40	34.34	1.92	25.40	259	0.35
95	16.14	34.27	2.23	280	150	12.25	34.43	1.08	26.11	191	0.46
109	14.72	34.41	1.50	240	200	11.50	34.61	0.52	26.40	164	0.55
123	13.96	34.43	1.15	222	250	10.81	34.61	0.30	26.52	152	0.64
148	12.72	34.48	0.86	195	300	10.13	34.60	0.23	26.64	141	0.71
175	11.84	34.52	0.65	176	400	9.01	34.58	0.19	26.81	125	0.85
211	11.39	34.63	0.47	160	500	7.63	34.53	0.13	26.98	108	0.97
262	10.61	34.60	0.24	149							
339	9.76	34.61	0.23	134							
435	8.56	34.56	0.14	120							
570	6.65	34.52	0.13	96							

STRANGER; March 7, 1958; 1408 GCT; 22°35'N, 111°59'W; sounding, 1900 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 06°. 150.40

0	22.10	34.66	6.38u	397	0	22.10	34.66	(5.01)	23.95	397	0.00
10	22.10	34.65	5.01	398	10	22.10	34.65	5.01	23.94	398	0.04
30	21.14	34.70	4.92	368	20	22.03	34.66	5.01	23.97	395	0.08
55	20.63	34.69	4.87	356	30	21.14	34.70	4.92	24.25	368	0.12
69p	20.39	34.65	5.09	353	50	20.73	34.70	4.87	24.36	358	0.19
91p	19.70	34.54	4.66	344	75	20.22	34.62	5.03	24.43	351	0.28
114p	15.91	34.29	2.18	273	100	18.22	34.42	3.64	24.79	317	0.36
142p	14.19	34.62	0.53	213	150	13.78	34.62	0.54	25.96	206	0.49
188p	12.42	34.58	0.69	182	200	12.22	34.59	0.63	26.25	178	0.59
234p	11.60	34.70	0.34	159	250	11.34	34.70	0.27	26.50	154	0.68
310p	10.40	34.66	0.14	141	300	10.56	34.67	0.16	26.62	143	0.76
403p	8.80	34.56	0.22	123	400	8.84	34.57	0.23	26.82	124	0.89
528p	7.24	34.52	0.22	104	500	7.56	34.53	0.22	26.98	108	1.02

a) Possible evaporation; value falls on property curve.

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
82.47-B	III-4	2035	34°15.0'	119°58.0'	300	300°	4	clear	rough	14.90	33.57	14.96	33.58
83.40-B	5	0035	34°14.0'	119°22.0'	12	280°	3	clear	moderate	15.40	33.57	-	-
83.43-B	5	0227	34°08.0'	119°34.0'	120	240°	3	partly cloudy	moderate	15.36	33.57	14.24	33.58
83.51-B	5	0758	33°52.0'	120°08.5'	65	290°	6	clear	rough	14.96	33.58	14.60	33.58
83.55-B	5	1023	33°44.0'	120°24.5'	800	280°	6	clear	high	14.02	33.58	12.58	33.58
83.60-B	5	1330	33°34.0'	120°45.0'	800	320°	4	partly cloudy	rough	14.34	33.48	13.97	33.53
83.70-B	5	1938	33°14.5'	121°26.0'	2100	300°	5	partly cloudy	rough	14.77	33.42	14.70	33.42
87.35-B	8	0550	33°50.0'	118°37.0'	300	calm		clear	rough	15.48	33.62	12.91	33.55
87.40-B	8	0835	33°40.0'	118°58.5'	460	var.	1	partly cloudy	moderate	14.60	33.60	14.32	33.58
87.45-B	8	1140	33°32.0'	119°19.0'	917	270°	2	partly cloudy	moderate	14.66	33.58	12.56	33.57
87.50-B	8	1443	33°20.0'	119°39.5'	42	320°	4	partly cloudy	rough	13.96	33.58	12.06	33.55
87.55-B	8	1757	33°10.0'	120°00.5'	650	300°	4	partly cloudy	moderate	13.88	33.58	13.61	33.56
87.60-B	8	2053	33°00.0'	120°21.5'	395	290°	7	partly cloudy	rough	14.78	33.48	14.61	33.49
87.70-B	6	1625	32°39.5'	121°02.0'	2098	310°	7	cloudy	very rough	15.34	33.55	15.29	33.57
90.28-B	7	2318	33°28.5'	117°46.5'	250	070°	4	partly cloudy	rough	15.24	33.51	13.19	33.52
90.50-B	12	1618	32°44.5'	119°16.5'	160	340°	4	partly cloudy	rough	14.38	33.55	14.20	33.55
93.27-B	9	1520	32°56.0'	117°19.0'	50	100°	4	partly cloudy	moderate	15.28	33.59	12.46	33.58
93.30-B	9	1710	32°50.0'	117°31.5'	460	300°	1	partly cloudy	moderate	15.70	33.64	13.68	33.54
93.35-B	9	2035	32°40.0'	117°52.0'	350	280°	3	cloudy	rough	15.46	33.60	15.35	33.58

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
93.40-B	III-9	2335	32°30.0'	118°12.5'	925	280°	5	partly cloudy	very rough	15.82	33.64	15.72	33.66
93.45-B	10	0215	32°20.0'	118°32.5'	900	330°	4	partly cloudy	rough	15.56	33.59	14.52	33.55
93.50-B	10	0525	32°10.0'	118°53.5'	730	320°	5	clear	very rough	14.91	33.56	14.84	33.53
93.60-B	10	1211	31°52.0'	119°26.0'	1200	300°	5	partly cloudy	very rough	15.20	33.55	15.21	33.56
93.70-B	10	1941	31°29.0'	120°14.0'	2000	300°	5	overcast	high	15.28	33.55	15.30	33.57
93.80-B	11	0200	31°10.0'	120°54.5'	2000	300°	7	rain	very rough	15.40	33.55	15.22	33.55
97.30-B	15	0505	32°15.5'	117°09.0'	33	calm		partly cloudy	slight	15.62	-	13.96	33.58
97.32-B	15	0625	32°11.5'	117°17.0'	750	calm		partly cloudy	slight	15.56	33.66	13.74	33.58
97.40-B	15	1028	31°55.5'	117°50.0'	700	090°	1	partly cloudy	smooth	15.64	33.53	15.53	33.58
97.45-B	15	1340	31°45.0'	118°10.0'	700	160°	2	partly cloudy	slight	15.66	33.53	15.50	33.55
97.50-B	15	1653	31°35.5'	118°30.5'	1300	180°	3	partly cloudy	moderate	15.46	33.51	15.31	-
97.60-B	15	2222	31°15.5'	119°10.5'	1900	200°	3	cloudy	moderate	15.58	33.48	15.46a)	33.51
97.70-B	16	0435	30°55.0'	119°50.5'	2000	170°	4	missing	moderate	15.26	33.48	15.22	33.53
97.80-B	16	1055	30°35.5'	120°31.0'	2100	180°	4	rain	rough	14.85b)	33.34	14.52c)	33.30
100.30-B	18	0540	31°40.5'	116°46.5'	220	320°	4	partly cloudy	moderate	15.64	33.59	12.89	33.55

a) Mean value of 15.37 and 15.55°C.

b) Mean value of 14.77 and 14.93°C.

c) Mean value of 14.57 and 14.46°C.

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TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
100.32-B	III-18	0345	31°35.5'	116°54.5'	600	320°	4	partly cloudy	moderate	15.98	33.57	13.28	33.49
100.40-B	17	2210	31°19.0'	117°29.0'	1050	320°	4	partly cloudy	moderate	16.76	33.71	16.60	33.73
100.45-B	17	1925	31°10.5'	117°47.0'	650	310°	4	cloudy	moderate	16.60	33.71	16.42	33.72
100.50-B	17	1645	31°01.0'	118°07.0'	925	320°	3	cloudy	moderate	16.73	33.87	16.78	33.78
100.60-B	17	1110	30°37.5'	118°47.5'	1550	200°	2	missing	slight	16.22	33.60	16.48	33.75
100.70-B	17	0550	30°19.0'	119°27.0'	2000	270°	1	missing	slight	15.42	33.33	14.98	33.40
100.80-B	17	0028	30°01.0'	120°07.0'	2000	220°	2	cloudy	moderate	15.91	33.55	14.98	-
100.90-B	16	1940	29°40.5'	120°47.0'	2100	200°	2	cloudy	moderate	16.26	33.58	16.05	33.60
103.30-B	18	1055	31°05.0'	116°25.0'	40	290°	5	clear	very rough	15.58	33.60	12.85	33.54
103.35-B	18	1355	30°55.5'	116°45.0'	1000	320°	5	clear	rough	15.74	33.55	14.21	33.46
103.40-B	18	1655	30°45.5'	117°05.5'	900	300°	5	cloudy	rough	15.98	33.60	15.94	33.62
103.45-B	18	2015	30°36.5'	117°25.0'	1100	320°	4	cloudy	rough	16.47	33.74	16.34	33.58
103.50-B	18	2310	30°25.5'	117°45.5'	1400	330°	4	cloudy	moderate	16.36	33.67	15.81	33.60
103.60-B	19	0440	30°06.0'	118°25.5'	2100	320°	3	clear	moderate	16.02	33.56	16.06	33.62
103.70-B	19	0955	29°45.0'	119°10.0'	1800	320°	2	clear	moderate	15.40	33.28	15.05	33.30
107.32-B	20	1405	30°26.0'	116°11.0'	300	missing		fog	slight	16.21	33.58	15.88	33.51
107.35-B	20	1200	30°20.0'	116°23.0'	900	calm		cloudy	slight	15.90	33.62	15.01	33.59
107.40-B	20	0905	30°10.5'	116°43.5'	1500	010°	3	missing	slight	16.02	33.62	15.84	33.62
107.45-B	20	0620	30°00.0'	117°03.0'	850	010°	2	missing	slight	16.08	33.60	15.56	33.58

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
107.70-B	III-19	1600	29°11.0'	118°43.0'	1800	360°	3	cloudy	moderate	16.65	33.73	16.59	33.81
110.33-S	19	2100	29°57.0'	115°55.0'	68	340°	4	clear	rough	15.94	33.63	11.89	33.56
110.35-S	19	1900	29°49.0'	116°11.0'	700	320°	4	clear	rough	16.06	33.64	15.94	33.62
110.40-S	19	1630	29°39.0'	116°30.0'	1150	350°	4	partly cloudy	rough	16.35	33.68	16.08	33.60
110.45-S	19	1415	29°29.0'	116°48.0'	550	350°	4	cloudy	rough	16.04	33.62	16.04	33.62
110.70-S	19	0130	28°41.0'	118°21.0'	2000	340°	4	cloudy	moderate	17.56	34.02	17.26	34.03
110.80-S	18	2100	28°20.0'	119°00.0'	2000+	350°	3	cloudy	rough	17.82	34.02	17.72	34.07
110.90-S	18	1600	28°00.0'	119°36.0'	2000+	360°	3	overcast	moderate	17.06	33.85	16.79	33.84
113.30-S	17	1030	29°22.5'	115°17.5'	30	260°	1	overcast	slight	16.62	34.02	15.00	33.93
113.35-S	17	1310	29°12.0'	115°39.0'	500	320°	3	drizzle	moderate	16.28	33.68	15.99	33.65
113.40-S	17	1540	29°02.0'	115°58.5'	950	300°	3	drizzle	moderate	16.50	33.66	16.28	33.69
113.45-S	17	1800	28°52.0'	116°18.0'	1200	290°	2	cloudy	moderate	16.55	33.66	16.16	33.64
113.70-S	18	0730	28°05.0'	117°56.0'	2000+	320°	3	clear	moderate	17.68	33.96	17.29	33.94
117.26-S	17	0615	28°56.0'	114°41.0'	36	calm		drizzle	slight	16.80	33.93	15.42	33.87
117.30-S	17	0430	28°48.0'	114°56.5'	52	250°	2	overcast	slight	16.00	33.84	14.26	33.85
117.35-S	17	0200	28°38.0'	115°16.0'	95	320°	2	overcast	slight	16.18	33.62	15.90	33.63
117.40-S	16	2145	28°28.0'	115°35.5'	500	270°	1	overcast	slight	16.38	33.68	16.23	33.66
117.45-S	16	1930	28°18.0'	115°55.0'	1700	260°	2	cloudy	slight	16.58	33.68	16.46	33.68
117.60-S	16	1140	27°47.5'	116°54.0'	2000+	calm		cloudy	slight	16.64	33.70	16.50	33.68

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TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
117.70-S	III-16	0730	27°27.5'	117°32.5'	2000+	320°	1	cloudy	slight	17.40	33.98	17.04	33.96
118.39-S	16	2330	28°18.5'	115°24.0'	135	270°	1	overcast	slight	16.31	33.73	16.48	33.93
119.33-S	14	1515	28°19.0'	114°53.0'	55	320°	3	clear	moderate	16.44	33.91	16.71	34.06
120.25-S	14	1845	28°23.0'	114°14.5'	26	300°	2	clear	moderate	17.07	34.11	-	-
120.30-S	14	2100	28°13.0'	114°34.0'	48	320°	3	clear	moderate	16.11	33.73	15.24	33.68
120.35-S	14	2315	28°03.0'	114°54.0'	42	330°	4	clear	moderate	16.84	33.89	16.63	33.92
120.40-S	15	0120	27°56.5'	115°14.0'	20	320°	6	clear	rough	16.46	34.01	-	-
120.45-S	15	0345	27°45.0'	115°34.0'	1100	320°	3	clear	rough	16.64	34.00	14.32	33.87
120.60-S	15	1115	27°19.0'	116°34.0'	2000+	320°	2	clear	moderate	17.70	34.07	17.04	33.94
120.70-S	15	1540	26°59.0'	117°13.5'	2000+	calm		partly cloudy	moderate	17.30	33.93	16.87	33.87
120.90-S	15	2330	26°25.0'	118°18.0'	2000+	320°	1	cloudy	slight	18.58	34.17	18.36	34.17
123.37-S	13	1045	27°24.0'	114°39.5'	38	330°	2	cloudy	slight	16.24	33.90	13.87	34.00
123.42-S	13	0800	27°13.5'	114°59.5'	700	330°	3	cloudy	rough	16.66	33.93	16.64	33.95
123.50-S	13	0420	26°53.5'	115°34.0'	2000	310°	2	partly cloudy	rough	16.76	33.89	16.70	33.89
123.60-S	12	2345	26°34.0'	116°12.0'	2000	310°	3	cloudy	very rough	16.96	33.86	16.76	33.86
127.34-S	12	0715	26°55.5'	114°06.0'	43	300°	3	partly cloudy	rough	17.29	34.23	17.09	34.21
127.40-S	12	1000	26°43.5'	114°29.5'	1700	260°	3	rain	rough	17.00	34.27	16.94	34.22
127.45-S	12	1230	26°33.0'	114°50.0'	2000	320°	3	cloudy	moderate	16.68	33.91	16.92	34.04
127.50-S	12	1500	26°20.0'	115°09.0'	2050	320°	3	partly cloudy	rough	17.34	34.02	17.35	34.01

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
127.60-S	III-12	1920	26°00.0'	115°47.0'	2000	300°	3	overcast	very rough	19.05	34.51	18.62	34.43
130.30-S	12	0230	26°26.0'	113°29.0'	40	320°	4	cloudy	rough	18.14	34.42	17.73	34.34
130.35-S	12	0015	26°16.0'	113°45.0'	600	320°	3	partly cloudy	rough	18.06	34.33	17.98a)	34.33
130.40-S	11	2145	26°04.0'	114°03.0'	1250	290°	3	partly cloudy	rough	18.14	34.35	17.65	34.33
130.45-S	11	1915	25°53.0'	114°20.5'	2150	300°	3	partly cloudy	rough	18.16	34.33	18.13	34.33
130.50-S	11	1700	25°41.5'	114°38.5'	2200	300°	3	cloudy	very rough	18.47	34.43	18.49	34.43
130.60-S	11	1220	25°27.0'	115°16.0'	2100	320°	5	overcast	high	19.38	34.46	19.37	34.47
133.25-S	10	1845	25°55.5'	112°48.5'	50	300°	1	partly cloudy	moderate	18.66	34.52	18.25	34.47
133.30-S	10	2045	25°49.0'	113°01.0'	110	290°	2	clear	moderate	19.26	34.60	19.18	34.60
133.35-S	10	2315	25°39.0'	113°24.0'	370	310°	4	partly cloudy	rough	19.71	34.54	19.54	34.53
133.40-S	11	0145	25°31.0'	113°44.0'	800	320°	4	partly cloudy	rough	18.82	34.47	18.38	34.42
133.50-S	11	0615	25°14.5'	114°24.0'	2100	320°	4	partly cloudy	rough	19.22	34.45	18.78	34.36
137.23-S	10	1430	25°26.0'	112°26.5'	45	330°	3	partly cloudy	rough	19.45	34.62	18.84b)	34.56
137.30-S	10	1145	25°14.0'	112°50.5'	210	340°	4	partly cloudy	rough	19.42	34.61	19.18	34.63
137.35-S	10	0915	25°04.0'	113°11.0'	900	330°	4	cloudy	rough	19.94	34.56	19.73	34.61

a) Mean value of 17.91 and 18.04°C.

b) Mean value of 18.79 and 18.90°C.

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TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
137.50-S	III-10	0100	24°40.0'	114°02.0'	1900	320°	5	partly cloudy	very rough	19.94	34.52	19.76	34.49
140.30-S	9	0940	24°43.5'	112°26.0'	65	320°	3	partly cloudy	rough	20.08	34.54	19.59	34.52
140.35-S	9	1200	24°36.0'	112°43.0'	700	320°	3	clear	rough	19.94	34.51	18.08	34.16
140.40-S	9	1435	24°25.0'	113°04.0'	2000	320°	5	cloudy	rough	19.84	34.49	19.45	34.57
140.50-S	9	1930	24°04.0'	113°42.0'	1950	320°	4	partly cloudy	rough	19.17	34.44	18.94	34.46
143.26-S	9	0440	24°19.0'	111°48.0'	45	340°	3	partly cloudy	rough	19.89	34.64	18.85	34.54
143.30-S	9	0245	24°11.0'	112°03.0'	110	320°	4	partly cloudy	rough	20.25	34.60	19.98	34.64
143.35-S	8	2345	24°00.0'	112°23.0'	1300	320°	3	partly cloudy	rough	20.76	34.62	20.48	34.60
143.40-S	8	2115	23°51.0'	112°40.5'	1850	320°	3	partly cloudy	rough	20.72	34.66	20.36a)	34.61
147.20-S	8	0610	23°56.0'	111°03.5'	80	360°	4	clear	rough	21.62	34.70	19.21	34.52
147.25-S	8	0830	23°46.5'	111°22.5'	250	340°	4	clear	rough	20.51	34.67	20.28	34.64
147.40-S	8	1600	23°17.0'	112°20.0'	1900	320°	3	partly cloudy	moderate	20.86	34.69	20.86	34.66
150.19-S	8	0125	23°23.5'	110°39.0'	225	310°	4	partly cloudy	moderate	22.27	34.68	21.97	34.66
150.30-S	7	1840	22°54.5'	111°21.0'	1700	-	1	partly cloudy	rough	21.21	34.67	20.45	34.59

a) Mean value of 20.30 and 20.42°C.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

SPENCER F. BAIRD; March 31, 1958; 1432 GCT; 40°14.5'N, 124°31.5'W; sounding, 105 fm; wind, 200°, force 4; weather, showers; sea, very high; wire angle, 24°. 47.50

0	11.92	32.88		298	0	11.92	32.88		24.99	298	0.00
9	12.04	32.89		300	10	12.04	32.89		24.97	300	0.03
27	12.03	32.92		298	20	12.04	32.90		24.97	300	0.06
46	11.18	33.26		257	30	12.03	32.93		25.00	297	0.09
70	9.80	33.56		213	50	10.85	33.33		25.53	246	0.14
91	9.23	33.72		192	75	9.63	33.59		25.93	208	0.20
113	9.02	33.78		185	100	9.20	33.77		26.14	188	0.25

SPENCER F. BAIRD; March 31, 1958; 1813 GCT; 40°04.5'N, 124°55'W; sounding, 670 fm; wind, 160°, force 6; weather, showers; sea, very high; wire angle, 35°. 47.55

0	11.82	32.86	5.70	298	0	11.82	32.86	5.70	24.98	298	0.00
8	11.82	32.89	5.93	297	10	11.82	32.88	5.93	25.00	297	0.03
29	11.83	32.86	5.94	298	20	11.82	32.87	5.93	24.98	298	0.06
37	11.81	32.88	5.87	296	30	11.82	32.87	5.91	24.98	298	0.09
49	11.23	33.24	5.08	260	50	11.18	33.25	5.02	25.40	258	0.14
56	10.77	33.32	4.75	246	75	8.91	33.28	4.40	25.81	220	0.20
63	10.15	33.33	4.37	235	100	8.56	33.51	3.95	26.05	197	0.26
77	8.91	33.34	4.34	215	150	8.42	33.88	2.68	26.35	168	0.35
90	8.74	33.45	4.14	204	200	7.96	33.99	2.08	26.51	153	0.43
100	8.56	33.51	3.95	197	250	7.56	34.02	1.87	26.59	146	0.51
116	8.40	33.54	3.94	193	300	7.09	34.09	1.45	26.71	134	0.58
142	8.55	33.82	2.90	174	400	6.25	34.18	0.79	26.90	117	0.71
170	8.18	33.95	2.31	159							
214	7.88	34.00	2.03	152							
282	7.25	34.04	1.67	140							
316p	6.98	34.13	1.30	129							
440p	5.90	34.19	0.61	112							

BLACK DOUGLAS; April 17, 1958; 0713 GCT; 37°47.5'N, 123°15'W; sounding, 65 fm; wind, 340°, force 5; weather, cloudy; sea, high; wire angle, 13°. 60.55

0	13.20	31.83	6.19	399	0	13.20	31.83	6.19	23.92	399	0.00
10	13.12	31.90	6.15	393	10	13.12	31.90	6.15	23.99	393	0.04
29	10.94	33.21	4.98	257	20	12.80	32.53	6.04	24.54	340	0.08
48	10.74	33.42	4.14	238	30	10.93	33.21	4.94	25.42	257	0.11
72	9.90	33.64	3.35	208	50	10.73	33.42	4.14	25.62	238	0.16
95	9.16	33.84	2.59	182	75	9.80	33.67	3.22	25.97	205	0.21
					100	(9.10)	(33.86)	(2.55)	(26.24)	(179)	(0.26)

BLACK DOUGLAS; April 17, 1958; 1039, 1054 GCT; 37°37'N, 123°37'W; sounding, 1700 fm; wind, 280°, force 4; weather, drizzle; sea, very rough; wire angle, 04°, 05°. 60.60

0	13.37	32.28	6.12	369	0	13.37	32.28	6.12	24.24	369	0.00
10	13.35	32.29	6.13	368	10	13.35	32.29	6.13	24.25	368	0.04
29	13.00	32.82	5.78	322	20	13.22	32.52	6.02	24.46	348	0.07
43	12.42	33.21	5.20	284	30	12.97	32.83	5.76	24.74	322	0.11
51	11.98	33.34	4.65	266	50	12.02	33.34	4.65	25.32	267	0.16
60	11.34	33.35	4.80	253	75	10.31	33.49	4.31	25.74	226	0.23
69	10.58	33.42	4.57	236	100	9.26	33.63	3.74	26.03	199	0.28
86	9.67	33.59	3.79	209	150	8.69	33.89	2.68	26.32	171	0.37
					200	8.04	34.02	2.14	26.53	152	0.46
100	9.26	33.63	3.74	199	250	7.59	34.12	1.60	26.66	139	0.53
113	9.01	33.75	3.21	187	300	7.14	34.13	1.36	26.74	131	0.60
135	8.77	33.87	2.78	173	400	6.32	34.21	0.60	26.91	115	0.73
162	8.60	34.01	2.32	161	500	5.80	34.23	0.60	27.00	107	0.84
197	8.04	34.02	2.14	152							
251	7.59	34.12	1.60	139							
323	6.91	34.14	1.20	128							
420	6.22	34.22	0.59	115							
556	5.50	34.23	0.63	104							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
60.70	BLACK DOUGLAS; April 17, 1958; 1815, 1832 GCT; 37°17'N, 124°21.5'W; sounding, 2170 fm; wind, 270°, force 3; weather, cloudy; sea, very rough; wire angle, 15°, 16°.										
0	13.31	33.05	6.08	312	0	13.31	33.05	6.08	24.84	312	0.00
9	13.24	33.06	6.14	310	10	13.23	33.06	6.15	24.87	309	0.03
28	13.06	33.06	6.22	306	20	13.08	33.06	6.21	24.89	307	0.06
52	13.05	33.06	6.33	306	30	13.06	33.06	6.22	24.91	306	0.09
61	12.89	33.06	6.04	303	50	13.05	33.06	6.31	24.91	306	0.15
70	12.85	33.03	6.07	304	75	12.76	33.03	6.02	24.94	303	0.23
79	12.62	33.04	5.92	299	100	10.40	33.22	5.50	25.51	248	0.30
92	10.87	33.16	5.56	260	150	9.15	33.68	3.46	26.08	194	0.41
					200	8.40	33.94	2.35	26.41	163	0.50
107p	10.52	33.42	4.45	234	250	7.30	33.97	2.97	26.59	146	0.58
124p	9.85	33.61	3.65	210	300	6.57	34.00	2.34	26.71	134	0.65
139p	9.54	33.63	3.59	204	400	(6.00)	(34.09)	(0.65)	(26.86)	(120)	(0.78)
158p	9.08	33.73	3.27	189							
175p	8.80	33.85	2.62	176							
220p	8.11	33.96	2.28	158							
260p	6.97	33.97	3.20	141							
312p	6.52	34.00	2.21	133							
390p	6.12	34.07	1.35	123							
60.80	BLACK DOUGLAS; April 18, 1958; 0044 GCT; 36°57'N, 125°04'W; sounding, 2300 fm; wind, 270°, force 3; weather, drizzle; sea, high; wire angle, 07°.										
0	13.71	33.04	6.08	320	0	13.71	33.04	6.08	24.76	320	0.00
9	13.59	33.07	6.11	315	10	13.58	33.07	6.11	24.81	315	0.03
29	13.37	33.02	6.15	315	20	13.43	33.04	6.14	24.81	315	0.06
53	13.27	33.04	6.18	312	30	13.37	33.02	6.15	24.81	315	0.10
62	13.12	33.04	6.10	309	50	13.30	33.04	6.17	24.83	313	0.16
72	13.04	33.03	5.97	308	75	12.95	33.04	5.91	24.90	306	0.24
81	12.48	33.09	5.82	294	100	10.55	33.25	5.45	25.52	248	0.30
94	11.08	33.22	5.56	259	150	8.84	33.58	4.70	26.06	196	0.42
107	10.07	33.28	5.37	238	200	8.18	33.88	4.04	26.39	164	0.51
124	9.28	33.47	5.19	211	250	7.32	33.97	3.28	26.57	147	0.59
142	8.96	33.55	4.96	200	300	6.58	33.99	2.34	26.70	135	0.66
164	8.62	33.66	4.28	188	400	5.72	34.04	1.28	26.86	120	0.79
186	8.40	33.80	4.18	174	500	5.18	34.11	0.74	26.97	109	0.91
229	7.64	33.93	3.65	154							
300	6.58	33.99	2.34	135							
390	5.76	34.04	1.32	121							
510	5.14	34.14	0.71	106							
60.90	BLACK DOUGLAS; April 18, 1958; 0701 GCT; 36°37'N, 125°47'W; sounding, 2300 fm; wind, 270°, force 3; weather, overcast; sea, high; wire angle, 07°.										
0	13.21	33.00	6.14	314	0	13.21	33.00	6.14	24.82	314	0.00
10	13.20	33.04	6.14	310	10	13.20	33.04	6.14	24.86	310	0.03
29	12.84	32.96	6.18	310	20	13.02	33.00	6.17	24.86	310	0.06
52	12.80	32.99	6.13	306	30	12.83	32.97	6.18	24.87	309	0.09
62	12.60	33.03	5.95	300	50	12.80	32.98	6.13	24.89	307	0.15
70	11.58	33.08	5.55	278	75	10.50	33.16	5.22	25.45	254	0.22
80	9.66	33.25	4.96	234	100	8.97	33.43	4.47	25.92	209	0.28
93	9.20	33.38	4.50	217	150	8.30	33.84	3.20	26.34	170	0.38
106	8.76	33.46	4.44	204	200	8.00	34.00	2.28	26.51	153	0.46
124	8.53	33.58	4.17	192	250	7.25	34.03	2.04	26.65	140	0.54
141	8.34	33.71	3.46	180	300	6.81	34.04	1.61	26.71	134	0.61
164	8.28	33.91	2.94	164	400	5.65	34.01	1.35	26.84	122	0.74
186	8.18	33.97	2.36	158	500	5.00	34.09	0.80	26.98	109	0.86
231	7.48	34.02	2.16	145							
303	6.79	34.04	1.59	134							
395	5.70	34.01	1.37	123							
516	4.98	34.10	0.72	108							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T_3}^{-5}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T_3}^{-5}$ 10^{-5} cm/g	ΔD dyn. m
BLACK DOUGLAS; April 18, 1958; 1311 GCT; 36°17'N, 126°27'W; sounding, 2400 fm; wind, 270°, force 3; weather, partly cloudy; sea, high; wire angle, 05°.											60.100
0	13.39	32.99	6.09	318	0	13.39	32.99	6.09	24.78	318	0.00
10	13.40	33.02	6.10	316	10	13.40	33.02	6.10	24.80	316	0.03
29	13.10	33.03	6.07	309	20	13.26	33.03	6.08	24.84	312	0.06
53	13.06	33.04	6.08	308	30	13.09	33.03	6.07	24.87	309	0.09
63	13.06	33.03	6.08	308	50	13.06	33.04	6.07	24.88	308	0.16
72	13.08	33.04	6.03	308	75	13.10	33.07	6.02	24.90	306	0.23
80	13.12	33.10	6.00	304	100	11.30	33.28	5.60	25.41	258	0.30
94	12.00	33.22	5.73	275	150	9.02	33.61	5.05	26.05	197	0.42
107	10.48	33.31	5.45	242	200	8.30	33.90	4.25	26.39	165	0.51
124	9.79	33.40	5.32	224	250	7.72	33.98	3.40	26.53	151	0.59
141	9.17	33.55	5.17	204	300	7.00	34.03	2.50	26.68	137	0.67
169	8.86	33.68	4.66	189	400	6.20	34.11	1.28	26.85	121	0.80
186	8.52	33.84	4.40	172	500	5.33	34.16	0.87	27.00	107	0.92
230	7.95	33.96	3.66	155							
302	6.98	34.04	2.38	136							
393	6.23	34.11	1.30	122							
515	5.18	34.17	0.83	104							
BLACK DOUGLAS; April 18, 1958; 2014 GCT; 35°55'N, 127°15'W; sounding, 2400 fm; wind, 280°, force 2; weather, overcast; sea, high; wire angle, 06°.											60.110
0	14.68	33.26	5.89	323	0	14.68	33.26	5.89	24.73	323	0.00
10	14.57	33.30	5.92	318	10	14.57	33.30	5.92	24.78	318	0.03
29	14.54	33.36a)	5.84		20	14.55	33.31	5.86	24.80	316	0.06
53	14.46	33.34	5.87	313	30	14.54	33.32	5.84	24.81	315	0.10
63	14.42	33.35	5.84	311	50	14.48	33.33	5.86	24.82	314	0.16
72	14.40	33.34	5.87	311	75	14.38	33.34	5.88	24.85	311	0.24
81	14.34	33.34	5.90	310	100	12.00	33.30	5.58	25.29	270	0.31
94	13.54	33.32	5.74	296	150	9.18	33.45	4.92	25.90	211	0.43
108	10.67	33.28	5.46	248	200	8.55	33.82	3.45	26.29	174	0.53
126	9.79	33.31	5.21	231	250	8.00	33.94	2.66	26.47	157	0.61
144	9.33	33.40	5.03	217	300	7.30	34.01	2.42	26.62	143	0.69
166	8.96	33.57	4.50	199	400	6.32	34.05	1.42	26.79	127	0.83
189	8.68	33.77	3.85	180	500	5.60	34.16	0.76	26.97	110	0.95
233	8.20	33.91	2.78	163							
305	7.24	34.02	2.37	141							
397	6.36	34.05	1.45	127							
517	5.45	34.20	0.64	106							
BLACK DOUGLAS; April 16, 1958; 2136 GCT; 37°19'N, 122°36'W; sounding, 45 fm; wind, 320°, force 5; weather, overcast; sea, very rough; wire angle, 15°.											63.52
0	13.92	32.10	6.34	393	0	13.92	32.10	6.34	23.99	393	0.00
10	13.16	32.61	6.11	341	10	13.16	32.61	6.11	24.54	341	0.04
29	12.50	32.62	5.32	328	20	12.78	32.61	5.68	24.62	333	0.07
48	11.62	33.32	4.66	261	30	12.48	32.62	5.31	24.68	328	0.10
72	9.77	33.60	3.75	209	50	11.55	33.32	4.64	25.38	260	0.16
					75	(9.64)	(33.62)	(3.53)	(26.04)	(198)	(0.22)

a) Possible evaporation; value does not fall on property curve.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
63.110	BLACK DOUGLAS; April 19, 1958; 0223 GCT; 35°21.5'N, 126°46'W; sounding, 2400 fm; wind, 270°, force 2; weather, overcast; sea, high; wire angle, 11°.										
0	14.94	33.34	5.84	322	0	14.94	33.34	5.84	24.74	322	0.00
10	14.86	33.37	5.89	319	10	14.86	33.37	5.89	24.77	319	0.03
28	14.50	33.34	5.90	314	20	14.64	33.36	5.90	24.80	315	0.06
51	14.49	33.34	5.92	314	30	14.50	33.34	5.90	24.82	314	0.10
60	14.48	33.34	5.82	314	50	14.49	33.34	5.91	24.82	314	0.16
69	14.48	33.38	5.81	310	75	14.46	33.40	5.80	24.87	309	0.24
78	14.42	33.40	5.78	308	100	11.90	33.38	5.55	25.37	262	0.31
91	13.34	33.44	5.67	283	150	9.24	33.54	4.74	25.96	206	0.43
105	11.12	33.36	5.48	249	200	8.52	33.76	3.57	26.25	178	0.52
122	10.31	33.40	5.30	233	250	7.84	33.94	3.02	26.49	155	0.61
140	9.78	33.46	5.16	220	300	7.00	33.97	2.30	26.63	142	0.68
162	9.13	33.55	4.59	203	400	6.30	34.10	1.32	26.84	122	0.82
185	8.72	33.66	3.88	189	500	5.58	34.15	0.70	26.96	111	0.94
229	8.17	33.93	3.22	160							
302	6.99	33.97	2.29	142							
393	6.34	34.10	1.36	123							
513	5.48	34.16	0.65	109							
67.55	BLACK DOUGLAS; April 16, 1958; 1148 GCT; 36°38.5'N, 122°24.5'W; sounding, 1200 fm; wind, 340°, force 5; weather, clear; sea, very rough; wire angle, 15°.										
0	13.83	32.51	6.04	361	0	13.83	32.51	6.04	24.32	361	0.00
10	13.82	32.47	6.13	364	10	13.82	32.47	6.13	24.29	364	0.04
28	13.34	32.93	6.08	320	20	13.80	32.57	6.15	24.38	356	0.07
42	12.55	33.17	5.68	288	30	13.23	32.98	6.05	24.81	315	0.10
51	11.37	33.22	5.55	264	50	11.48	33.22	5.55	25.33	266	0.16
60	10.23	33.26	5.32	242	75	9.82	33.43	4.30	25.78	222	0.22
69	9.82	33.40	4.55	255	100	9.82	33.68	3.35	25.97	205	0.28
85	9.92	33.58	3.93	213	150	8.98	33.90	2.68	26.28	175	0.37
98	9.84	33.66	3.46	206	200	8.25	33.99	2.40	26.46	158	0.46
111	9.68	33.83	2.98	191	250	7.62	34.07	1.83	26.62	143	0.54
132	9.45	33.89	2.69	183	300	7.20	34.10	1.36	26.70	135	0.61
158	8.80	33.90	2.68	172	400	6.46	34.20	0.95	26.88	118	0.74
193	8.33	33.98	2.46	159	500	5.82	34.26	0.60	27.01	106	0.86
240	7.78	34.05	1.96	146							
314	7.12	34.12	1.30	132							
408	6.39	34.21	0.90	116							
539	5.74	34.27	0.52	104							
67.60	BLACK DOUGLAS; April 16, 1958; 0740 GCT; 36°28.5'N, 122°46'W; sounding, 1600 fm; wind, 330°, force 6; weather, clear; sea, high; wire angle, 23°.										
0	14.13	32.83	5.93	343	0	14.13	32.83	5.93	24.51	343	0.00
9	14.10	32.84	5.95	342	10	14.10	32.84	5.96	24.52	342	0.03
27	13.40	33.01	6.07	316	20	14.06	32.87	5.98	24.55	339	0.07

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T} $^{-5}_{10}$ ^{3} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T} $^{-5}_{10}$ ^{3} cm/g	ΔD dyn. m
BLACK DOUGLAS; April 15, 1958; 2228 GCT; 36°08'N, 123°29.5'W; sounding, 1971 fm; wind, 330°, force 6; weather, partly cloudy; sea, high; wire angle, 12°.											67.70
0	13.22	33.03	6.05	312	0	13.22	33.03	6.05	24.84	312	0.00
10	13.22	33.04	6.14	311	10	13.22	33.04	6.14	24.85	311	0.03
29	13.10	33.05	6.14	308	20	13.19	33.05	6.14	24.86	310	0.06
57	12.78	33.04	5.99	302	30	13.09	33.05	6.14	24.89	307	0.09
67	11.79	33.22	5.36	271	50	12.85	33.04	6.05	24.93	303	0.15
76	11.02	33.30	4.95	252	75	11.03	33.30	4.95	25.46	253	0.22
89	9.74	33.39	4.72	224	100	8.95	33.38	4.69	25.88	213	0.28
103	8.81	33.38	4.68	211	150	8.63	33.87	3.18	26.32	172	0.38
116	8.68	33.55	4.64	196	200	8.26	34.00	2.51	26.48	156	0.46
134	9.13	33.78	3.30	186	250	7.94	34.08	1.96	26.59	146	0.54
151	8.63	33.88	3.18	171	300	7.63	34.12	1.66	26.66	139	0.61
177	8.62	33.96	2.52	165	400	6.76	34.18	1.03	26.83	123	0.75
199	8.28	34.00	2.51	157	500	5.92	34.24	0.54	26.98	108	0.87
247	7.98	34.08	2.01	146							
323	7.44	34.14	1.51	135							
421	6.58	34.19	0.90	120							
551	5.70	34.28	0.43	102							
BLACK DOUGLAS; April 15, 1958; 1521 GCT; 35°47.5'N, 124°12'W; sounding, 2150 fm; wind, 330°, force 5; weather, cloudy; sea, very rough; wire angle, 08°.											67.80
0	13.78	33.22	6.01	308	0	13.78	33.22	6.01	24.88	308	0.00
10	13.76	33.21	6.02	308	10	13.76	33.21	6.02	24.88	308	0.03
29	13.76	33.18	6.00	310	20	13.76	33.19	6.01	24.86	310	0.06
57	13.44	33.17	5.92	305	30	13.76	33.18	6.00	24.86	310	0.09
66	13.16	33.22	5.77	296	50	13.68	33.18	5.98	24.87	309	0.15
75	12.28	33.40a)	5.24	267	75	12.28	33.40	5.24	25.31	267	0.23
88	11.56	33.39	5.00	255	100	10.60	33.50	4.51	25.70	230	0.29
102	10.56	33.51	4.48	228	150	9.28	33.78	3.20	26.14	188	0.40
115	10.18	33.58	4.11	217	200	8.36	33.98	2.60	26.45	159	0.48
132	9.42	33.63	3.87	202	250	7.68	34.08	2.16	26.61	144	0.56
150	9.28	33.78	3.20	188	300	7.15	34.06	1.83	26.67	138	0.63
176	8.68	33.84	3.14	175	400	6.28	34.12	1.05	26.85	121	0.77
198	8.38	33.98	2.61	160	500	5.66	34.19	0.78	26.97	110	0.89
247	7.76	34.08	2.19	144							
323	6.92	34.04	1.66	135							
422	6.13	34.15	0.93	117							
551	5.39	34.22	0.70	103							
BLACK DOUGLAS; April 15, 1958; 0746 GCT; 35°28'N, 124°55'W; sounding, 2440 fm; wind, 320°, force 6; weather, cloudy; sea, high; wire angle, 20°.											67.90
0	13.99	33.17	5.86	316	0	13.99	33.17	5.86	24.80	316	0.00
10	14.00	33.20	5.96	314	10	14.00	33.20	5.96	24.82	314	0.03
28	13.97	33.19	5.88	314	20	13.98	33.20	5.94	24.82	314	0.06
55	13.76	33.24	5.96	306	30	13.97	33.19	5.88	24.83	313	0.09
64	12.99	33.31	5.45	286	50	13.85	33.22	5.93	24.86	310	0.16
73	11.37	33.37	4.92	253	75	11.23	33.38	4.72	25.50	249	0.23
85	10.32	33.44	4.35	230	100	9.82	33.48	4.22	25.82	219	0.29
98	9.83	33.48	4.24	219	150	9.10	33.83	2.68	26.21	182	0.39
111	9.71	33.58	3.91	210	200	8.26	34.01	2.20	26.48	156	0.47
126	9.33	33.68	3.40	196	250	7.70	34.05	2.05	26.60	145	0.55
143	9.22	33.78	2.72	188	300	7.25	34.10	1.62	26.70	136	0.62
167	8.77	33.93	2.55	169	400	6.54	34.18	0.80	26.86	120	0.75
187	8.58	34.00	2.31	162	500	5.93	34.23	0.52	26.97	109	0.87
232	7.92	34.02	2.13	151							
303	7.21	34.11	1.55	134							
398	6.56	34.18	0.81	120							
523	5.80	34.23	0.47	107							

a) Possible evaporation; value falls on property curve.

S10

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

67.110 BLACK DOUGLAS; April 19, 1958; 0830 GCT; 34°46'N, 126°19'W; sounding, 2400 fm; wind, 330°, force 4; weather, drizzle; sea, high; wire angle, 12°.

0	14.40	33.19	5.78	332	0	14.40	33.19	5.78	24.74	322	0.00
10	14.40	33.22	5.92	320	10	14.40	33.22	5.92	24.76	320	0.03
28	14.33	33.19	5.96	321	20	14.39	33.22	5.93	24.75	321	0.06
53	14.13	33.19	5.92	317	30	14.32	33.19	5.95	24.76	320	0.10
62	14.10	33.18	5.94	317	50	14.14	33.19	5.93	24.77	319	0.16
71	14.09	33.22	5.91	314	75	14.09	33.21	5.93	24.81	315	0.24
80	14.10	33.19	5.94	316	100	13.90	33.23	5.74	24.86	310	0.32
94	14.02	33.21	5.82	312	150	9.59	33.51	4.93	25.88	214	0.45
107	12.38	33.31	5.52	275	200	8.56	33.74	3.94	26.23	180	0.55
124	10.46	33.30	5.17	242	250	7.90	33.98	3.05	26.51	153	0.63
141	9.83	33.45	4.93	222	300	7.01	34.03	2.42	26.67	138	0.71
163	9.20	33.58	4.91	202	400	6.07	34.03	1.72	26.80	126	0.84
185	8.74	33.69	4.22	187	500	5.40	34.11	1.08	26.95	112	0.97
229	8.20	33.93	3.40	161							
300	7.01	34.03	2.42	138							
390	6.15	34.03	1.76	127							
509	5.34	34.13	1.01	110							

70.52 SPENCER F. BAIRD; April 9, 1958; 0905 GCT; 36°06.5'N, 121°49.5'W; sounding, 590 fm; wind, 320°, force 7; weather, clear; sea, very rough; wire angle, 47°.

0	13.42	33.04	5.78	314	0	13.42	33.04	5.78	24.82	314	0.00
8	13.47	33.04	5.78	315	10	13.46	33.04	5.75	24.81	315	0.03
25	13.46	33.04	5.67	315	20	13.46	33.04	5.68	24.81	315	0.06
32	13.44	33.10	5.63	310	30	13.44	33.08	5.63	24.84	312	0.09
42	13.02	33.23	5.26	293							
49	11.90	33.42	4.56	258							
121a)	9.84	33.77	2.90								
145a)	8.95	33.99	2.12								
184a)	8.50	34.01	1.90								
245a)	7.68	34.09	1.53								
412a)	6.54	34.16	0.83								
576a)	5.57	34.24	0.39								

70.60 BLACK DOUGLAS; April 14, 1958; 0629 GCT; 35°53'N, 122°23'W; sounding, 1650 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 10°.

0	14.36	33.12	6.38	327	0	14.36	33.12	6.38	24.68	327	0.00
10	13.58	33.18	6.19	307	10	13.58	33.18	6.19	24.89	307	0.03
29	13.56	33.26	6.14	301	20	13.57	33.23	6.18	24.94	303	0.06
38	13.54	33.26	6.04	300	30	13.56	33.26	6.14	24.96	300	0.09
48	13.50	33.26	5.92	300	50	13.46	33.27	5.86	24.98	298	0.15
57	12.68	33.40	5.24	274	75	10.65	33.48	4.60	25.68	232	0.22
66	11.74	33.47	4.75	252	100	9.38	33.55	4.06	25.94	207	0.27
79	10.16	33.48	4.55	224	150	8.68	33.90	2.72	26.33	170	0.37
92	9.44	33.52	4.25	210	200	8.12	34.07	2.25	26.56	149	0.45
106	9.35	33.57	4.00	205	250	7.72	34.14	1.66	26.66	139	0.52
128	8.74	33.74	3.52	183	300	7.18	34.16	1.43	26.76	130	0.59
155	8.66	33.95	2.68	166	400	6.25	34.23	0.85	26.94	113	0.72
186	8.24	34.04	2.47	154	500	5.72	34.28	0.54	27.05	102	0.83
230	7.92	34.12	1.81	143							
302	7.17	34.16	1.42	129							
393	6.31	34.22	0.88	114							
513	5.70	34.29	0.52	102							

a) Pretrip; depth too uncertain for interpolation.

SIO

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OBSERVED					INTERPOLATED				COMPUTED			
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m	
BLACK DOUGLAS; April 14, 1958; 1122 GCT; 35°32.5'N, 123°07.5'W; sounding, 2000 fm; wind, 310°, force 4; weather, overcast; sea, rough; wire angle, 17°.												70.70
0	13.83	33.08	5.96	320	0	13.83	33.08	5.96	24.76	320	0.00	
10	13.80	33.04	5.91	322	10	13.80	33.04	5.91	24.74	322	0.03	
28	13.50	33.11	5.94	310	20	13.67	33.07	5.91	24.79	317	0.06	
55	13.02	33.07	6.02	305	30	13.45	33.11	5.96	24.86	310	0.10	
64	12.93	33.07	5.95	303	50	13.16	33.07	6.00	24.90	306	0.16	
73	11.26	33.22	5.42	262	75	11.22	33.23	5.40	25.38	261	0.23	
85	10.42	33.45	4.54	231	100	9.72	33.63	3.95	25.96	206	0.29	
98	9.72	33.62	3.95	207	150	8.90	33.86	2.77	26.27	176	0.38	
111	9.62	33.71	3.68	199	200	8.46	34.08	1.96	26.51	153	0.47	
127	9.22	33.78	2.89	188	250	7.85	34.11	1.74	26.63	142	0.54	
144	8.93	33.84	2.78	178	300	7.42	34.13	1.35	26.70	135	0.62	
170	8.82	33.96	2.23	168	400	6.60	34.18	0.99	26.85	121	0.75	
191	8.60	34.07	2.01	157	500	5.88	34.21	0.80	26.97	110	0.87	
238	7.98	34.11	1.78	144								
312	7.33	34.14	1.19	133								
409	6.52	34.19	0.98	119								
535	5.62	34.22	0.65	106								
BLACK DOUGLAS; April 14, 1958; 1825 GCT; 35°12'N, 123°55'W; sounding, 2300 fm; wind, 340°, force 5; weather, overcast; sea, very rough; wire angle, 10°.												70.80
0	13.87	-	5.61		0	13.87	(33.15)	5.61	(24.81)	(315)	(0.00)	
11	13.79	33.15	5.84	314	10	13.80	33.15	5.83	24.82	314	0.03	
30	13.80	33.15	5.99	314	20	13.80	33.15	5.90	24.82	314	0.06	
59	13.58	33.20	5.83	306	30	13.80	33.15	5.99	24.82	314	0.09	
69	11.32	33.33	5.06	255	50	13.60	33.18	5.85	24.88	308	0.16	
77	10.94	33.38	4.53	244	75	11.20	33.38	4.50	24.50	249	0.23	
91	9.97	33.43	4.51	225	100	9.74	33.49	4.30	24.84	217	0.28	
105	9.64	33.51	4.18	214	150	8.52	33.78	3.72	26.25	178	0.39	
118	8.88	33.50	4.54	203	200	8.56	34.05	2.17	26.46	158	0.47	
136	8.52	33.64	4.35	187	250	7.80	34.07	2.09	26.60	145	0.55	
153	8.59	33.83	3.56	174	300	7.40	34.17	1.80	26.73	132	0.62	
179	8.74	34.00	2.39	164	400	6.75	34.27	0.80	26.90	116	0.75	
201	8.56	34.05	2.17	157	500	5.58	34.26	0.54	27.02	105	0.86	
250	7.80	34.07	2.09	145								
326	7.27	34.20	1.22	128								
424	6.55	34.28	0.72	113								
524	5.40	34.24	0.51	102								
BLACK DOUGLAS; April 15, 1958; 0013 GCT; 34°53'N, 124°30'W; sounding, 2260 fm; wind, 360°, force 5; weather, overcast; sea, very rough; wire angle, 00°.												70.90
0	14.15	33.26	5.94	312	0	14.15	33.26	5.94	24.84	312	0.00	
10	14.16	33.23	5.90	315	10	14.16	33.23	5.90	24.81	315	0.03	
30	14.13	33.26	5.90	312	20	14.14	33.25	5.90	24.83	313	0.06	
59	13.74	33.29	5.89	302	30	14.13	33.26	5.90	24.84	312	0.09	
68	13.55	33.28	5.80	299	50	13.78	33.29	5.90	24.94	303	0.16	
78	11.73	33.44	4.69	254	75	11.74	33.42	5.71	25.43	256	0.22	
92	10.43	33.47	4.43	230	100	9.93	33.49	4.32	25.81	220	0.29	
106	9.68	33.51	4.21	215	150	8.88	33.79	3.00	26.21	182	0.39	
119	9.44	33.60	3.79	204	200	8.35	33.97	2.42	26.44	160	0.47	
137	9.08	33.70	3.31	191	250	7.74	34.04	2.08	26.58	147	0.55	
156	8.81	33.83	2.88	178	300	7.28	34.11	1.75	26.70	135	0.62	
183	8.46	33.94	2.53	164	400	6.46	34.21	0.95	26.89	117	0.76	
204	8.30	33.98	2.31	159	500	5.80	34.22	0.64	26.98	108	0.87	
254	7.66	34.04	2.06	146								
331	7.01	34.16	1.40	128								
432	6.20	34.22	0.79	113								
563	5.41	34.21	0.53	104								

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m

70.100 BLACK DOUGLAS; April 19, 1958; 2141 GCT; 34°31'N, 125°14'W; sounding, 2400 fm; wind, 340°, force 5; weather, cloudy; sea, very rough; wire angle, 26°.

0	14.09	33.17	5.93	318	0	14.09	33.17	5.93	24.78	318	0.00
8	14.06	33.15	5.96	319	10	14.04	33.15	5.96	24.78	318	0.03
26	13.88	33.14	5.96	316	20	13.95	33.14	5.96	24.79	317	0.06
53	13.58	33.07	6.06	316	30	13.83	33.13	5.97	24.80	316	0.10
61	13.56	33.08	6.01	314	50	13.62	33.08	6.03	24.80	316	0.16
69	13.56	33.06	6.01	315	75	13.56	33.06	5.97	24.81	315	0.24
80	13.52	33.06	5.91	315	100	10.82	33.13	5.58	25.38	261	0.31
92	11.78	33.12a)	5.65	278	150	8.92	33.60	4.70	26.06	196	0.42
104	10.46	33.13	5.56	255	200	8.30	33.89	3.65	26.39	165	0.52
119	9.80	33.31	9.80	231	250	7.40	33.96	2.95	26.56	148	0.60
133	9.14	33.44	4.91	211	300	6.88	34.01	2.16	26.78	137	0.67
155	8.86	33.63	4.68	193	400	6.17	34.11	1.12	26.85	121	0.81
174	8.82	33.80	3.12	180	500	(5.35)	(34.11)	(0.92)	(26.96)	(111)	(0.93)
215	7.88	33.93	4.02	157							
283	7.04	33.98	2.35	142							
372	6.38	34.11	1.25	123							
492	5.42	34.11	0.92	112							

70.110 BLACK DOUGLAS; April 19, 1958; 1432 GCT; 34°13'N, 125°54'W; sounding, 2400+ fm; wind, 340°, force 5; weather, overcast; sea, very rough; wire angle, 16°.

0	13.93	33.05	5.93	323	0	13.93	33.05	5.93	24.73	323	0.00
9	13.92	33.10	5.96	319	10	13.92	33.09	5.96	24.76	320	0.03
28	13.91	33.04	5.92	324	20	13.91	33.09	5.94	24.76	320	0.06
55	14.02	33.12	5.83	320	30	13.91	33.05	5.92	24.74	322	0.10
64	14.11	33.23	5.80	314	50	14.00	33.10	5.88	24.74	322	0.16
73	14.14	33.22	5.75	315	75	14.14	33.23	5.75	24.82	314	0.24
85	14.12	33.23	5.75	314	100	11.72	33.29	5.44	25.34	265	0.31
97	12.40	33.28	-	278	150	9.46	33.61	3.83	25.96	204	0.43
110	11.25	33.47	5.39	243	200	8.75	33.92	2.55	26.34	169	0.53
126	10.67	33.46	5.24	235	250	7.97	34.04	2.00	26.53	151	0.61
143	9.48	33.58	3.87	207	300	7.00	34.07	1.75	26.70	135	0.68
167	9.37	33.72	2.75	194	400	6.60	34.18	0.86	26.85	121	0.82
187	8.98	33.88	2.63	176	500	5.94	34.22	0.79	26.96	110	0.94
232	8.24	34.00	2.13	157							
302	6.99	34.07	1.75	134							
395	6.66	34.18	0.90	122							
516	5.78	34.22	0.79	108							

73.55 BLACK DOUGLAS; April 12, 1958; 2020 GCT; 35°27.5'N, 121°37.5'W; sounding, 550 fm; wind, 320°, force 1; weather, clear; sea, moderate; wire angle, 06°.

0	14.19	33.01	6.03	332	0	14.19	33.01	6.03	24.63	332	0.00
10	13.54	33.04	6.12	316	10	13.54	33.04	6.12	24.80	316	0.03
28	13.32	33.01a)	6.04	315	20	13.40	33.02	6.10	24.81	315	0.06
38	12.68	33.14	5.68	293	30	13.22	33.02	5.98	24.84	312	0.10
48	11.93	33.21	5.42	274	50	11.68	33.20	5.44	25.27	271	0.15
57	11.34	33.26	5.26	260	75	10.38	33.50	4.24	25.73	227	0.22
66	10.77	33.43	4.63	238	100	9.66	33.58	3.88	25.92	209	0.27
79	10.27	33.51	4.15	224	150	8.64	33.86	2.94	26.31	172	0.37
93	9.92	33.58	3.82	213	200	8.08	34.01	2.23	26.50	154	0.45
106	9.32	33.58	4.12	204	250	7.60	34.13	1.65	26.68	138	0.52
128	8.82	33.69a)	3.56	188	300	7.40	34.20	1.35	26.75	131	0.59
155	8.60	33.89	2.71	170	400	6.32	34.20	1.15	26.90	116	0.72
186	8.22	33.98	2.36	158	500	5.62	34.22	0.70	27.01	106	0.84
231	7.74	34.09	1.78	142							
303	7.40	34.20	1.33	130							
394	6.39	34.20	1.16	117							
515	5.55	34.23	0.66	104							

a) Possible evaporation; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_3	Z	T	S	O_2	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

BLACK DOUGLAS; April 12, 1958; 1647 GCT; 35°18'N, 121°58.5'W; sounding, 1200 fm; wind, 320°, force 2; weather, clear; sea, rough; wire angle, 00°. 73.60

0	14.06	32.97	5.90	332	0	14.06	32.97	5.90	24.63	332	0.00
10	13.72	33.02	6.00	321	10	13.72	33.02	6.00	24.75	321	0.03
30	13.60	32.99	5.98	321	20	13.65	33.00	5.99	24.75	321	0.06
40	13.44	33.04	6.04	315	30	13.60	32.99	5.98	24.75	321	0.10
49	12.88	33.14	5.71	296	50	12.78	33.15	5.68	25.02	295	0.16
59	11.19	33.22	5.57	260	75	10.15	33.25	5.40	25.58	241	0.22
68	10.22	33.20	5.56	246	100	9.04	33.35	4.87	25.84	216	0.28
82	9.55	33.21	5.41	235	150	8.34	33.78	3.49	26.28	174	0.38
95	9.12	33.31	5.00	221	200	7.83	33.98	3.08	26.52	152	0.46
109	8.86	33.46	4.69	206	250	7.20	34.02	1.95	26.64	141	0.54
131	8.60	33.65	3.94	188	300	6.70	34.02	1.63	26.71	134	0.61
158	8.27	33.81	3.47	171	400	(6.20)	(34.20)	(0.72)	(26.92)	(115)	(0.74)
190	7.94	33.95a)	3.15	156							
235	7.34	34.02	2.15	142							
307	6.63	34.02	1.55	133							
398	6.22	34.18	0.74	116							

BLACK DOUGLAS; April 12, 1958; 1003 GCT; 34°58'N, 122°39'W; sounding, 2229 fm; wind, 320°, force 2; weather, clear; sea, rough; wire angle, 03°. 73.70

0	14.03	33.22	5.91	314	0	14.03	33.22	5.91	24.82	314	0.00
10	14.04	33.26	5.75	310	10	14.04	33.26	5.75	24.86	310	0.03
30	13.77	33.24	5.90	306	20	13.97	33.26	5.77	24.87	309	0.06
54	12.89	33.36	5.56	281	30	13.77	33.24	5.90	24.90	306	0.09
63	12.71	33.37a)	5.51	266	50	13.62	33.26	5.76	24.95	302	0.15
73	11.59	33.36	5.09	257	75	11.48	33.36	5.04	25.44	255	0.22
83	11.04	33.40	4.70	245	100	9.30	33.33	4.91	25.79	222	0.28
96	9.43	33.30	4.92	227	150	8.39	33.70	3.87	26.23	180	0.39
110	9.08	33.47	4.34	208	200	7.88	33.98	3.28	26.51	153	0.47
128	8.96	33.64	3.69	194	250	7.14	34.01	2.53	26.65	140	0.54
146	8.43	33.69	3.89	183	300	6.68	34.06	1.70	26.74	132	0.62
168	8.22	33.81	3.80	171	400	6.04	34.15	0.86	26.90	116	0.74
191	8.03	33.96	3.49	157	500	5.60	34.21	0.36	27.00	106	0.86
235	7.30	34.00	2.76	143							
307	6.63	34.06	1.59	130							
398	6.07	34.14	0.89	118							
520	5.54	34.25	0.23	103							

BLACK DOUGLAS; April 12, 1958; 0253 GCT; 34°38'N, 123°21.5'W; sounding, 2150 fm; wind, 340°, force 4; weather, clear; sea, very rough; wire angle, 10°. 73.80

0	14.33	33.22	5.85	319	0	14.33	33.22	5.85	24.77	319	0.00
10	14.29	33.26	5.95	315	10	14.29	33.26	5.95	24.81	315	0.03
29	14.06	33.25	5.99	311	20	14.15	33.26	5.98	24.83	313	0.06
52	13.76	33.27	5.88	304	30	14.05	33.25	5.99	24.85	311	0.09
61	11.84	33.35	5.36	263	50	13.78	33.26	5.90	24.91	305	0.16
70	11.07	33.32	5.17	251	75	10.54	33.33	5.44	25.58	242	0.22
79	10.16	33.35	5.62	234	100	9.43	33.44	4.43	25.85	216	0.28
97	9.52	33.41	4.59	219	150	8.80	33.90	2.76	26.31	172	0.38
106	9.28	33.60	4.02	202	200	8.13	34.00	2.25	26.49	155	0.46
124	9.17	33.76	3.27	188	250	7.60	34.06	1.93	26.62	143	0.54
142	8.91	33.84	3.01	179	300	7.04	34.10	1.66	26.72	133	0.61
168	8.71	33.93	2.60	169	400	6.12	34.10	1.12	26.84	122	0.74
186	8.34	33.98	2.39	159	500	5.72	34.21	0.60	26.99	108	0.86
231	7.82	34.04	2.04	148							
304	7.00	34.10a)	1.63	132							
396	6.16	34.09	1.15	122							
516	5.70	34.22	0.56	107							

a) Possible evaporation; value falls on property curve.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{3}^{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{3}^{-5} 10^{-5} cm/g	ΔD dyn. m

73.90 BLACK DOUGLAS; April 11, 1958; 2020 GCT; 34°18'N, 124°04'W; sounding, 2300 fm; wind, 330°, force 5; weather, partly cloudy; sea, rough; wire angle, 20°.

0	14.05	33.26	6.02	310	0	14.05	33.26	6.02	24.86	310	0.00
9	14.03	33.30	5.94	308	10	14.02	33.30	5.93	24.88	308	0.03
27	13.94	33.26	5.92	308	20	13.97	33.28	5.92	24.88	308	0.06
54	13.94	33.26	5.96	308	30	13.94	33.26	5.93	24.88	308	0.09
64	12.45	33.35	5.41	274	50	13.94	33.26	5.95	24.88	308	0.15
72	11.42	33.36	5.08	255	75	11.02	33.38	5.24	25.54	246	0.22
84	10.16	33.48	5.71	224	100	9.80	33.48	4.47	25.82	218	0.28
96	9.91	33.48	4.47	220	150	8.74	33.80	3.36	26.24	179	0.38
108	9.50	33.50	4.48	212	200	8.05	33.98	2.54	26.49	155	0.47
124	9.08	33.58	4.18	200	250	7.43	34.03	2.02	26.62	143	0.54
140	8.87	33.74	3.55	185	300	7.10	34.10	1.58	26.72	134	0.62
164	8.56	33.86	3.15	171	400	6.38	34.16	0.90	26.86	120	0.75
183	8.30	33.95	2.77	161							
228	7.64	34.01	2.22	148							
298	7.13	34.09	1.60	135							
392	6.46	34.15	1.00	122							
424p	6.21	34.19	0.75	115							

77.55 SPENCER F. BAIRD; April 9, 1958; 2335, 2350 GCT; 34°57.5'N, 121°13.5'W; sounding, 320 fm; wind, 320°, force 6; weather, clear; sea, very rough; wire angle, 35°, 41°.

0	14.11	33.45	5.78	298
9	14.14	33.41	5.76	301
22a)	14.00	33.48	5.18	294
31a)	13.48	33.56	4.27	278
39a)	12.26	33.66	3.65	247
55a)	11.04	33.72	3.24	222
70a)	10.24	33.82	2.85	201
82a)	9.94	33.86	2.62	193
103a)	9.68	33.90	2.37	186
136a)	9.37	33.98	2.27	175
168a)	8.88	34.02	2.22	165
217a)	8.44	34.06	1.91	155
295a)	8.15	34.14	1.54	145

77.60 SPENCER F. BAIRD; April 10, 1958; 0313 GCT; 34°52'N, 121°35.5'W; sounding, 1000 fm; wind, 330°, force 6; weather, partly cloudy; sea, very rough; wire angle, 31°.

0	13.64	33.44	5.72	289	0	13.64	33.44	5.72	25.08	289	0.00
8	13.66	33.44	5.73	290	10	13.63	33.44	5.73	25.08	290	0.03
30	13.57	33.43	5.68	288	20	13.62	33.43	5.73	25.08	289	0.06
39	13.47	33.45	-	285	30	13.57	33.43	5.68	25.09	288	0.09
52	13.28	33.45	5.53	281	50	13.32	33.45	5.54	25.15	282	0.14
60	12.60	33.40	5.01	272	75	10.66	33.46	4.21	25.65	235	0.21
68	11.65	33.42	4.62	254	100	9.68	33.56	3.89	25.91	210	0.26
83	10.22	33.49	4.01	225	150	8.54	33.90	2.75	26.36	168	0.36
100	9.68	33.56	3.89	210	200	8.33	34.08	1.84	26.52	152	0.44
111	9.29	33.60	3.76	202	250	7.85	34.14	1.47	26.64	141	0.52
129	8.89	33.77	3.13	183	300	7.27	34.15	1.28	26.74	132	0.59
160	8.42	33.94	2.64	164	400	6.50	34.21	0.74	26.89	118	0.72
192	8.39	34.05	2.02	155	500	(5.63)	(34.22)		(27.00)	(106)	(0.83)
248	7.87	34.14	1.49	141							
314	7.14	34.16	1.22	130							
358p	6.82	34.20	0.97	122							
477p	5.85	34.22	0.50	109							

a) Pretrip; depth too uncertain for interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{3}^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{3}^{-5} 10 cm/g	ΔD dyn. m

77.70

SPENCER F. BAIRD; April 10, 1958; 0850 GCT; 34°22'N, 122°16'W; sounding, 2000+ fm; wind, 340°, force 7; weather, clear; sea, high; wire angle, 40°.

0	13.78	33.02	5.92	322	0	13.78	33.02	5.92	24.74	322	0.00
7	13.84	32.99	5.92	327	10	13.84	32.99	5.90	24.68	327	0.03
27	13.88	33.04	5.89	323	20	13.85	33.03	5.89	24.71	324	0.06
49	13.95	33.35	5.76	302	30	13.93	33.09	5.80	24.76	320	0.10
54	13.33	33.37	5.53	288	50	13.92	33.36	5.72	24.95	301	0.16
64	12.62	33.49	4.42	266	75	11.21	33.60	3.80	25.67	233	0.23
70	11.19	33.53	4.21	238	100	10.11	33.66	3.58	25.91	210	0.28
83	10.86	33.61	3.78	227							
93	10.42	33.64	3.64	217							
108	9.85	33.70	3.51	204							
220a)	8.74	34.09	2.10								
340a)	7.43	34.24	1.11								
501a)	6.24	34.28	-								

77.80

SPENCER F. BAIRD; April 10, 1958; 1325 GCT; 34°03'N, 122°57.5'W; sounding, 2000+ fm; wind, 360°, force 6; weather, overcast; sea, very high; wire angle, 25°.

0	14.55	33.30	5.78	317	0	14.55	33.30	5.78	24.79	317	0.00
9	14.56	33.29	5.79	318	10	14.56	33.29	5.79	24.78	318	0.03
31	14.56	33.29	5.82	318	20	14.56	33.29	5.80	24.78	318	0.06
57	14.55	33.31	5.78	317	30	14.56	33.29	5.81	24.78	318	0.10
65	14.55	33.33	5.78	317	50	14.56	33.30	5.78	24.79	317	0.16
85	12.44	33.35	5.47	274	75	14.25	33.33	5.74	24.87	309	0.24
102	10.87	33.35	5.05	246	100	11.00	33.35	5.07	25.51	248	0.31
115	10.21	33.39	4.96	232	150	9.21	33.62	3.78	26.02	200	0.42
131	9.48	33.46	4.74	215	200	8.57	33.94	2.30	26.38	166	0.51
153	9.18	33.64	3.63	197	250	7.86	34.03	1.99	26.56	149	0.59
178	8.78	33.84	2.92	176	300	7.33	34.09	1.60	26.68	137	0.67
205	8.51	33.95	2.21	164	400	6.48	34.17	0.96	26.86	120	0.80
258	7.76	34.04	1.96	146	500	5.72	34.22	0.69	26.99	107	0.92
340	7.00	34.13	1.22	130	600	(5.09)	(34.24)	(0.38)	(27.08)	(99)	(1.03)
449	6.05	34.20	0.81	113							
595	5.17	34.24	0.38	99							

77.90

BLACK DOUGLAS; April 11, 1958; 1055 GCT; 33°31.5'N, 123°30'W; sounding, 2400 fm; wind, 340°, force 6; weather, clear; sea, very rough; wire angle, 18°.

0	14.97	33.43	5.77	317	0	14.97	33.43	5.77	24.79	317	0.00
10	14.96	33.43	5.81	317	10	14.96	33.43	5.81	24.79	317	0.03
28	14.96	33.42	5.82	317	20	14.96	33.42	5.81	24.79	317	0.06
55	14.96	33.43	5.90	317	30	14.96	33.42	5.82	24.79	317	0.10
64	14.94	33.43	5.84	316	50	14.96	33.42	5.88	24.79	317	0.16
73	14.89	33.42	5.80	316	75	14.88	33.42	5.78	24.80	316	0.24
85	14.20	33.39	5.67	304	100	11.58	33.39	5.34	25.43	256	0.31
98	11.82	33.39	5.38	259	150	9.24	33.62	4.08	26.03	199	0.42
111	10.35	33.37	5.06	235	200	8.36	33.96	2.76	26.43	161	0.52
128	10.00	33.46	4.68	224	250	7.86	34.03	2.26	26.55	149	0.60
145	9.39	33.58	4.22	205	300	7.30	34.08	2.04	26.67	138	0.67
171	8.82	33.82	3.26	178	400	6.40	34.17	1.16	26.87	119	0.80
193	8.46	33.94	2.86	164	500	5.88	34.25	0.60	26.99	108	0.92
240	7.98	34.02	2.31	151							
315	7.14	34.09	1.99	134							
414	6.32	34.18	0.96	117							
544	5.64	34.29	0.43	101							

a) Pretrip; depth too uncertain for interpolation.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m
80.51	BLACK DOUGLAS; April 9, 1958; 2114 GCT; 34°26.5'N, 120°32.5'W; sounding, 45 fm; wind, 280°, force 5; weather, clear; sea, very rough; wire angle, 10°.										
0	13.72	33.51	5.46	286	0	13.72	33.51	5.46	25.12	286	0.00
15	13.62	33.56	5.46	280	10	13.66	33.55	5.46	25.16	282	0.03
29	12.01	33.57	4.32	250	20	13.59	33.56	5.45	25.18	279	0.06
48	11.35	33.58	4.00	237	30	12.00	33.57	4.32	25.51	249	0.08
58	10.98	33.64	3.77	226	50	11.30	33.58	3.96	25.64	236	0.13
80.55	BLACK DOUGLAS; April 10, 1958; 0223 GCT;[a] 34°19'N, 120°48'W; sounding, 420 fm; wind, 280°, force 7; weather, clear; sea, very rough; wire angle, missing.										
0	13.90	33.45	5.79	294	0	13.90	33.45	5.79	25.03	294	0.00
9	13.90	33.47	5.88	292	10	13.89	33.47	5.88	25.05	292	0.03
32	13.63	33.47	5.69	287	20	13.75	33.47	5.76	25.08	289	0.06
41	13.60	33.46	5.56	287	30	13.64	33.47	5.71	25.10	287	0.09
54	12.28	33.51	4.65	258	50	13.45	33.46	5.34	25.14	283	0.14
63	10.90	33.53	4.29	233	75	10.42	33.53	4.24	25.76	224	0.21
72	10.55	33.53	4.24	227	100	10.02	33.67	3.55	25.93	208	0.26
88	10.36	33.60	3.78	218	150	9.32	33.92	2.68	26.24	179	0.36
104	9.92	33.68	3.51	206	200	8.70	34.01	2.40	26.41	162	0.45
116	9.80	33.75	3.27	199	250	7.98	34.10	1.85	26.59	146	0.52
137	9.49	33.84	2.97	187	300	7.48	34.19	1.36	26.74	132	0.60
170	9.18	33.96	2.52	174	400	6.61	34.29	0.74	26.94	113	0.72
203	8.62	34.02	2.38	160	500	5.90	34.35	0.67	27.07	100	0.83
254	7.98	34.11	1.81	144							
330	7.23	34.22	1.11	127							
429	6.38	34.31	0.60	108							
562b)	5.73	34.36	0.72	97							
80.60	BLACK DOUGLAS; April 10, 1958; 0555 GCT; 34°09'N, 121°09'W; sounding, 1250 fm; wind, 300°, force 7; weather, clear; sea, high; wire angle, 37°.										
0	13.84	33.33	5.88	302	0	13.84	33.33	5.88	24.95	302	0.00
8	13.82	33.35	5.98	300	10	13.82	33.35	5.97	24.97	300	0.03
28	13.82	33.33	5.88	302	20	13.82	33.34	5.90	24.97	300	0.06
36	13.80	33.34	6.12	300	30	13.82	33.34	5.95	24.97	300	0.09
47	12.91	33.49	5.05	272	50	12.78	33.49	5.03	25.29	269	0.15
56	12.56	33.49	5.00	265	75	11.23	33.65	4.35	25.70	230	0.21
63	12.08	33.57	4.87	251	100	10.08	33.72	3.32	25.95	206	0.26
78	11.07	33.67	4.01	226	150	9.28	33.99	2.38	26.30	173	0.36
92	10.30	33.69	3.46	211	200	8.84	34.11	2.04	26.46	158	0.44
102	10.05	33.74	3.28	204	250	8.10	34.13	1.64	26.60	145	0.52
120	9.81	33.81	3.07	194	300	7.45	34.16	1.28	26.72	134	0.59
146	9.34	33.97	2.41	175	400	6.72	34.24	1.02	26.88	118	0.72
173	9.15	34.04	2.23	167	500	(5.99)	(34.29)	(0.53)	(27.01)	(106)	(0.84)
214	8.66	34.12	1.94	154							
278	7.68	34.14	1.39	138							
366	6.94	34.22	1.10	122							
492	6.04	34.28	0.55	107							

a) Owing to difficulty in tripping Nansen bottles, five casts were made on this station; times of observation, wire angles and depths of casts were not recorded.

b) Possible pretrip; depth uncertain. Alternate depth, 537 meters.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
BLACK DOUGLAS; April 10, 1958; 1335 GCT; 33°47'N, 121°54'W; sounding, 2000 fm; wind, 300°, force 6; weather, overcast; sea, very rough; wire angle, 13°.											80.70
0	13.91	33.20	6.09	312	0	13.91	33.20	6.09	24.84	312	0.00
10	13.89	33.19	5.98	312	10	13.89	33.19	5.98	24.84	312	0.03
29	13.94	33.24	5.94	310	20	13.90	33.22	5.96	24.86	310	0.06
43	13.85	33.33	5.87	302	30	13.94	33.26	5.93	24.88	308	0.09
52	12.73	33.40	5.20	275	50	13.40	33.37	5.56	25.08	290	0.15
62	11.58	33.37	4.85	256	75	10.20	33.34	4.82	25.64	236	0.22
71	10.86	33.40	4.60	242	100	9.50	33.55	4.07	25.92	209	0.28
89	9.83	33.46	4.42	221	150	8.77	33.78	3.27	26.23	180	0.37
102	9.48	33.57	4.04	207							
116	9.72	33.68	3.39	202							
138	9.03	33.74	3.32	188							
164	8.52	33.81	3.16	175							
200	8.56	33.82a)	2.99								
249b)	7.94	34.11	1.73	144							
422b)	6.24	34.18	1.08	116							
559b)	5.36	34.29	0.43	98							
BLACK DOUGLAS; April 10, 1958; 2020 GCT; 33°27'N, 122°35'W; sounding, 2200 fm; wind, 330°, force 6; weather, cloudy; sea, very rough; wire angle, 02°.											80.80
0	14.23	33.22	5.81	317	0	14.23	33.22	5.81	24.79	317	0.00
10	14.22	33.27	5.90	314	10	14.22	33.27	5.90	24.82	314	0.03
29	14.22	33.22	5.95	317	20	14.22	33.23	5.93	24.80	316	0.06
59	14.21	33.24	5.85	315	30	14.22	33.22	5.95	24.79	317	0.09
252c)	8.02	34.02	2.05	152	50	14.21	33.23	5.88	24.80	316	0.16
329	7.00	34.10	1.25	132							
429	6.00	34.16	0.85	115							
563	5.27	34.24	0.42	101							
BLACK DOUGLAS; April 11, 1958; 0327 GCT; 33°06'N, 123°14'W; sounding, 2150 fm; wind, 340°, force 6; weather, clear; sea, very rough; wire angle, 18°.											80.90
0	15.19	33.44	5.83	320	0	15.19	33.44	5.83	24.75	320	0.00
9	15.16	33.44	5.81	319	10	15.16	33.44	5.81	24.76	319	0.03
28	15.18	33.47	5.83	318	20	15.16	33.46	5.82	24.77	318	0.06
53	15.18	33.45	5.76	319	30	15.18	33.46	5.83	24.77	318	0.10
62	15.18	33.48	5.76	317	50	15.18	33.46	5.78	24.76	319	0.16
70	15.20	33.48	5.86	317	75	15.18	33.48	5.84	24.79	317	0.24
82	14.96	33.49	5.72	312	100	12.55	33.45	5.47	25.30	268	0.31
94	13.42	33.48	5.58	283	150	9.30	33.68	3.45	26.06	196	0.43
107	11.18	33.40	5.20	247	200	8.61	34.08	2.08	26.48	156	0.52
123	9.90	33.48	4.71	220	250	8.20	34.24	1.44	26.67	138	0.59
140	9.50	33.59	4.09	206	300	7.80	34.29	1.03	26.76	129	0.66
166	9.00	33.86	2.78	178	400	7.00	34.31	0.66	26.90	116	0.79
186	8.75	34.02	2.34	162							
233	8.38	34.19	1.63	144							
305	7.79	34.29	1.01	128							
312p	7.68	34.27r	0.98								
412p	6.91	34.31	0.62	115							

a) Possible evaporation; value does not fall on property curve.
b) Pretrip; depth too uncertain for interpolation.
c) Possible pretrip, 252 to 563 meters.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

80.110 BLACK DOUGLAS; April 6, 1958; 1708, 1725, 1758 GCT; 32°29'N, 124°34.5'W; sounding, 2500 fm; wind, 240°, force 6; weather, partly cloudy, sea, high; wire angle, 18°, 21°, 21°.

0	14.55	33.21	5.52	324	0	14.55	33.21	5.52	24.72	324	0.00
9	14.54	33.22	5.74	323	10	14.54	33.22	5.75	24.72	323	0.03
28	14.54	33.22	5.78	323	20	14.54	33.22	5.77	24.72	323	0.06
56	14.53	33.22	5.80	323	30	14.54	33.22	5.78	24.72	323	0.10
					50	14.54	33.22	5.79	24.72	323	0.16
64	14.53	33.21	5.79	324	75	14.49	33.19	5.78	24.71	324	0.24
73	14.48	33.18	5.78	325	100	13.18	33.52	5.59	25.22	275	0.32
85	14.94	33.53	5.72	308	150	10.08	33.54	5.16	25.81	239	0.44
98	13.34	33.52	5.60	278	200	(8.80)	(33.79)	(4.00)	(26.22)	(181)	(0.55)
					250	(8.03)	(33.90)	(3.48)	(26.42)	(162)	(0.63)
109	12.36	33.52	5.48	259	300	(7.25)	(33.97)	(2.74)	(26.59)	(145)	(0.71)
148	10.15	33.53	5.21	220	400	6.52	34.06	1.70	26.76	129	(0.86)
196	8.84	33.78	4.03	182	500	5.94	34.17	0.98	26.93	113	(0.98)
321	6.92	34.00	2.36	138							
422	6.44	34.07	1.61	127							
551	5.42	34.28	0.51	100							

80.130 BLACK DOUGLAS; April 6, 1958; 0412, 0433, 0449 GCT; 31°49'N, 125°56'W; sounding, 2400 fm; wind, 260°, force 4; weather, drizzle; sea, very rough; wire angle, 10°, 02°, 02°.

0	15.32	33.36	5.33	329	0	15.32	33.36	5.33	24.66	329	0.00
10	15.33	33.42	5.34	324	10	15.33	33.42	5.34	24.71	324	0.03
29	15.34	33.39	5.47	327	20	15.33	33.40	5.40	24.69	326	0.06
58	15.44	33.66u	5.37		30	15.34	33.40	5.46	24.68	327	0.10
67	15.37	33.40	5.39	327	50	15.41	33.40	5.40	24.68	327	0.16
76	15.40	33.42	5.67	326	75	15.39	33.40	5.65	24.68	327	0.24
88	15.32	33.42	5.73	324	100	14.42	33.67	5.67	25.10	288	0.32
103	14.02	33.68	5.64	279	150	10.15	33.48	5.30	25.76	225	0.45
					200	8.96	33.80	3.92	26.20	182	0.56
119	13.06	33.53	5.60	272	250	8.26	34.02	2.40	26.48	156	0.64
136	11.39	33.51	5.52	243	300	7.60	34.06	2.00	26.62	143	0.72
					400	6.67	34.12	1.12	26.80	126	0.86
155	9.84	33.48	5.22	220	500	5.97	34.22	0.58	26.96	110	0.98
182	9.06	33.75	4.50	187							
203	8.93	33.84	3.23	178							
252	8.22	34.02	2.38	155							
328	7.27	34.07	1.84	138							
427	6.50	34.40u	0.86								
557	5.57	34.29	0.48	100							

80.145 BLACK DOUGLAS; April 5, 1958; 1931, 1959 GCT; 31°18.5'N, 126°58'W; sounding, 2400 fm; wind, 250°, force 5; weather, partly cloudy; sea, very rough; wire angle, 22°, 22°.

0	15.57	33.37		333	0	15.57	33.37		24.62	333	0.00
9	15.57	33.37		333	10	15.56	33.37		24.62	333	0.03
28	15.53	33.39		331	20	15.54	33.37		24.62	333	0.07
54	15.54	33.40		331	30	15.53	33.40		24.64	331	0.10
63	15.54	33.40		331	50	15.54	33.40		24.64	331	0.17
72	15.57	33.44		328	75	15.57	33.45		24.68	327	0.25
84	15.56	33.45		327	100	13.92	33.40		24.98	299	0.33
96	14.87	33.40		317	150	10.36	33.45		25.70	230	0.46
					200	8.73	33.82		26.26	177	0.56
114	12.58	33.42		270	250	7.99	33.97		26.49	155	0.65
131	11.65	33.42		254	300	7.42	34.03		26.62	143	0.73
148	10.52	33.44		233	400	6.68	34.15		26.82	124	0.87
193	8.86	33.78		182	500	5.98	34.21		26.95	111	0.99
239	8.12	33.95		158							
311	7.31	34.04		140							
404	6.65	34.16		123							
523	5.81	34.22		108							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_3	Z	T	S	O_2	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

PAOLINA-T; April 2, 1958; 0215 GCT; 34°14.5'N, 119°55'W; sounding, 310 fm; wind, 290°, force 4; weather, rain; sea, rough; wire angle, 00°. 82.47

0	14.82	33.45	6.03	312	0	14.82	33.45	6.03	24.84	312	0.00
10	14.84	33.41	5.79	315	10	14.84	33.41	5.79	24.81	315	0.03
30	13.93	33.53	5.44	288	20	14.69	33.42	5.65	24.84	312	0.06
40	13.06	33.58	5.83	268	30	13.93	33.53	5.44	25.09	288	0.09
50	12.40	33.61	4.57	254	50	12.40	33.61	4.57	25.45	254	0.15
60	11.83	33.62	4.09	242	75	10.82	33.69	3.28	25.81	220	0.21
70	11.20	33.65	3.49	229	100	10.10	33.80	2.78	26.02	200	0.26
84	10.37	33.76	3.01	207	150	9.53	34.02	2.15	26.29	174	0.35
99	10.14	33.80	2.81	201	200	8.94	34.13	1.58	26.47	157	0.44
113	9.93	33.89	2.67	190	250	8.47	34.16	1.44	26.56	148	0.52
137	9.70	33.99	2.41	179	300	8.00	34.21	0.95	26.68	137	0.59
166	9.32	34.04	1.91	170	400	7.28	34.23	0.75	26.80	126	0.72
199	8.97	34.13	1.61	158	500	(6.57)	(34.28)	(0.26)	(26.94)	(112)	(0.85)
248	8.50	34.16	1.46	149							
296	8.02	34.21	0.97	138							
398	7.30	34.23	0.76	127							
498	6.59	34.28	0.28	113							

PAOLINA-T; April 1, 1958; 2214 GCT; 34°09'N, 119°33.5'W; sounding, 130 fm; wind, 220°, force 3; weather, rain; sea, rough; wire angle, 03°. 83.43

0	14.96	33.42	5.81	317	0	14.96	33.42	5.81	24.79	317	0.00
9	14.96	33.45	5.88	315	10	14.96	33.46	5.87	24.82	314	0.03
29	14.82	33.52	5.75	307	20	14.94	33.49	5.83	24.85	311	0.06
49	13.10	33.56	4.99	270	30	14.82	33.52	5.75	24.89	307	0.09
74	11.50	33.58	4.08	240	50	13.05	33.56	4.95	25.29	269	0.15
97	10.76	33.66	3.57	220	75	11.47	33.58	4.07	25.60	239	0.21
122	10.22	33.77	3.18	204	100	10.66	33.67	3.53	25.82	218	0.27
160	9.13	34.09	1.99	163	150	9.35	34.03	2.25	26.32	171	0.37
199	8.85	34.17	1.58	153	200	(8.84)	(34.18)	(1.56)	(26.52)	(152)	(0.46)

PAOLINA-T; April 2, 1958; 0715 GCT; 33°52'N, 120°07.5'W; sounding, 71 fm; wind, 270°, force 5; weather, partly cloudy; sea, rough; wire angle, 15°. 83.51

0	14.21	33.51	5.65	295	0	14.21	33.51	5.65	25.01	295	0.00
10	14.20	33.48	5.60	297	10	14.20	33.48	5.60	25.00	297	0.03
29	13.81	33.53	5.47	286	20	14.08	33.50	5.54	25.03	294	0.06
48	11.71	33.60	4.21	242	30	13.77	33.53	5.43	25.11	286	0.09
72	11.26	33.58	3.99	236	50	11.65	33.60	4.19	25.59	241	0.14
95	10.52	33.69	3.43	214	75	11.18	33.59	3.92	25.66	234	0.20
117	10.18	33.82	3.09	199	100	10.25	33.70	3.38	25.92	210	0.26

PAOLINA-T; April 2, 1958; 1042 GCT; 33°44.5'N, 120°23'W; sounding, 630 fm; wind, 270°, force 4; weather, partly cloudy; sea, high; wire angle, 10°. 83.55

0	14.12	33.50	5.70	294	0	14.12	33.50	5.70	25.03	294	0.00
10	14.12	33.51	5.93	294	10	14.12	33.51	5.93	25.03	294	0.03
30	13.41	33.51	5.42	280	20	14.03	33.51	5.91	25.05	292	0.06
44	12.37	33.58	4.52	255	30	13.41	33.51	5.42	25.18	280	0.09
54	11.30	33.66	3.84	230	50	11.78	33.64	4.07	25.60	240	0.14
63	10.40	33.56	3.82	222	75	10.20	33.69	3.28	25.92	210	0.20
73	10.25	33.68	3.32	211	100	9.74	33.82	2.80	26.09	193	0.25
92	9.66	33.74	3.04	197	150	9.40	33.99	2.23	26.28	175	0.34
107	9.80	33.87	2.60	190	200	9.01	34.09	1.93	26.43	161	0.42
122	9.64	33.92	2.47	184	250	8.47	34.20	1.32	26.60	145	0.50
145	9.44	33.97	2.27	177	300	8.02	34.24	1.12	26.69	136	0.58
174	9.18	34.06	2.09	166	400	7.12	34.26	0.84	26.83	123	0.71
212	8.93	34.11	1.80	158	500	6.03	34.29	0.65	27.01	106	0.83
264	8.30	34.22	1.25	141	600	(5.44)	(34.33)		(27.11)	(96)	(0.93)
346	7.75	34.25	1.00	131							
448	6.50	34.26	0.74	114							
589	5.53	34.33	0.51	97							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

83.60 PAOLINA-T; April 2, 1958; 1449 GCT; 33°35'N, 120°43'W; sounding, 800 fm; wind, 220°, force 4; weather, cloudy; sea, high; wire angle, 16°.

0	14.48	33.30	5.65	316	0	14.48	33.30	5.65	24.80	316	0.00
10	14.48	33.33	5.76	314	10	14.48	33.33	5.76	24.82	314	0.03
29	14.47	33.31	5.80	315	20	14.48	33.31	5.78	24.81	315	0.06
43	14.24	33.38	5.88	305	30	14.47	33.32	5.81	24.81	315	0.09
52	13.93	33.38	5.88	299	50	14.00	33.38	5.88	24.96	300	0.16
61	13.60	33.41	5.66	291	75	12.23	33.39	5.20	25.31	268	0.23
70	12.86	33.40	5.27	277	100	10.22	33.38	4.84	25.67	233	0.29
87	10.68	33.33	5.03	244	150	9.22	33.71	3.31	26.09	193	0.40
100	10.22	33.38	4.84	233	200	8.54	33.97	2.24	26.41	163	0.49
113	9.69	33.44	4.53	220	250	8.04	34.08	1.70	26.57	148	0.57
135	9.46	33.62	3.71	203	300	7.47	34.09	1.53	26.65	140	0.64
162	9.03	33.79	3.01	184	400	6.83	34.22	1.09	26.85	121	0.78
196	8.58	33.96	2.30	164	500	6.27	34.30	0.68	26.99	108	0.90
245	8.12	34.08	1.73	149							
322	7.28	34.09	1.47	137							
418	6.74	34.25	1.01	118							
553	5.94	34.31	0.56	103							

87.35 PAOLINA-T; April 6, 1958; 1405 GCT; 33°50'N, 118°37.5'W; sounding, 350 fm; wind, 140°, force 5; weather, cloudy; sea, very rough; wire angle, 17°.

0	15.34	33.42	5.93	325	0	15.34	33.42	5.93	24.70	325	0.00
10	15.34	33.44	5.85	324	10	15.34	33.44	5.85	24.72	324	0.03
20	15.32	33.46	5.85	322	20	15.32	33.46	5.85	24.74	322	0.06
38	14.52	33.52	5.58	301	30	15.25	33.47	5.82	24.76	320	0.10
48	12.87	33.53	4.75	268	50	12.65	33.53	4.62	25.34	264	0.16
57	11.97	33.58	4.07	248	75	10.76	33.68	3.73	25.81	220	0.22
76	10.75	33.68	3.72	220	100	10.38	33.71	3.42	25.91	210	0.27
89	10.40	33.70	3.46	212	150	9.80	33.92	2.88	26.17	186	0.37
102	10.36	33.72	-	210	200	9.02	34.15	2.07	26.47	157	0.46
115	10.15	33.81	3.18	200	250	8.70	34.17	1.77	26.54	150	0.54
136	9.93	33.89	3.01	190	300	8.41	34.30	1.49	26.69	136	0.61
162	9.66	33.95	2.68	182	400	7.71	34.36	0.84	26.84	122	0.74
193	9.08	34.14	2.11	159	500	6.65	34.38	0.40	27.00	107	0.86
236	8.79	34.16	1.85	152							
309	8.38	34.31	1.44	135							
400	7.71	34.36	0.84	122							
523	6.42	34.38	0.34	104							

87.40 PAOLINA-T; April 6, 1958; 1035 GCT; 33°40'N, 118°58.5'W; sounding, 480 fm; wind, 150°, force 4; weather, cloudy; sea, rough; wire angle, 08°.

0	14.79	33.54	5.24	305	0	14.79	33.54	5.24	24.92	305	0.00
10	14.68	33.49	5.07	306	10	14.68	33.49	5.07	24.90	306	0.03
30	13.70	33.58	4.89	280	20	14.63	33.49	5.06	24.92	305	0.06
40	12.96	33.53	4.16	270	30	13.70	33.58	4.89	25.18	280	0.09
50	11.76	33.49	3.99	251	50	11.76	33.49	3.99	25.48	251	0.14
60	11.50	33.53	4.21	243	75	10.69	33.58	4.00	25.73	227	0.20
69	11.10	33.56	4.03	234	100	10.14	33.70	3.40	25.94	208	0.26
83	10.48	33.67u	3.75	223	150	9.61	34.00	2.52	26.25	178	0.35
97	10.22	33.66	3.45	212	200	8.98	34.15	1.79	26.48	156	0.44
111	9.94	33.78	3.20	199	250	8.58	34.23	1.45	26.60	145	0.52
135	9.77	33.97	2.78	182	300	8.20	34.28	1.23	26.70	135	0.59
163	9.46	34.02	2.32	174	400	7.30	34.31	0.72	26.85	121	0.72
196	9.02	34.14	1.87	158	500	6.55	34.35	0.60	26.99	108	0.84
244	8.63	34.22	1.49	146							
320	8.03	34.30	1.15	131							
416	7.20	34.31	0.67	119							
543	6.22	34.38	0.59	101							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m
PAOLINA-T; April 6, 1958; 0646 GCT; 33°30'N, 119°18'W; sounding, 920 fm; wind, 160, force 3; weather, partly cloudy; sea, high; wire angle, 03°.											87.45
0	14.40	33.51	5.82	299	0	14.40	33.51	5.82	24.98	299	0.00
10	14.38	33.52	5.83	298	10	14.38	33.52	5.83	24.99	298	0.03
30	14.22	33.51	5.76	295	20	14.32	33.52	5.81	25.00	296	0.06
40	14.12	33.51	5.74	293	30	14.22	33.51	5.76	25.02	295	0.09
50	13.37	33.58	5.27	274	50	13.37	33.58	5.27	25.24	274	0.15
59	11.98	33.55	4.45	250	75	10.37	33.60	3.95	25.82	218	0.21
69	11.26	33.58	4.11	235	100	9.80	33.69	3.24	25.98	203	0.27
83	10.22	33.68	3.30	211	150	9.40	33.91	2.54	26.22	180	0.36
97	9.86	33.68	-	205	200	8.79	34.17	1.66	26.52	152	0.44
112	9.70	33.73	3.22	199	250	8.45	34.22	1.34	26.62	143	0.52
137	9.48	33.86	2.72	186	300	7.95	34.25	1.07	26.72	134	0.59
165	9.22	33.98	2.39	173	400	7.23	34.36	0.70	26.91	116	0.72
198	8.81	34.14	1.74	155	500	6.55	34.36	0.43	27.00	107	0.83
246	8.54	34.22	1.37	145							
324	7.75	34.26	0.95	130							
421	7.10	34.38	0.62	113							
549	6.20	34.34	0.35	104							
PAOLINA-T; April 6, 1958; 0036 GCT; 33°10.5'N, 120°01'W; sounding, 640 fm; wind, 180°, force 3; weather, partly cloudy; sea, high; wire angle, 14°.											87.55
0	14.88	33.46	5.86	313	0	14.88	33.46	5.86	24.83	313	0.00
10	14.52	33.44	5.82	307	10	14.52	33.44	5.82	24.89	307	0.03
29	14.06	33.46	5.77	296	20	14.27	33.45	5.80	24.95	302	0.06
39	13.50	33.46	5.52	285	30	14.04	33.46	5.76	25.02	295	0.09
48	12.78	33.46	5.12	271	50	12.67	33.47	5.07	25.29	269	0.15
59	12.25	33.57	4.69	254	75	10.62	33.49	4.33	25.69	232	0.21
67	11.61	33.51	4.36	247	100	9.54	33.52	3.93	25.90	212	0.27
81	10.22	33.49	4.30	225	150	9.00	33.83	3.04	26.23	180	0.36
96	9.64	33.50	4.05	215	200	8.66	34.22	1.80	26.59	146	0.45
111	9.32	33.63	3.70	200	250	8.07	34.19	1.44	26.66	139	0.52
134	9.16	33.73	3.50	190	300	7.83	34.18	1.28	26.68	137	0.59
162	8.92	33.93	2.68	172	400	6.98	34.29	0.73	26.88	118	0.72
196	8.76	34.22	1.88	148	500	6.02	34.36	0.47	27.06	101	0.84
243	8.16	34.20	1.50	140							
320	7.67	34.18	1.19	135							
415	6.83	34.31	0.67	114							
540	5.76	34.36	0.44	97							
PAOLINA-T; April 5, 1958; 2105, 2120 GCT; 33°02'N, 120°22.5'W; sounding, 2100 fm; wind, 300°, force 3; weather, partly cloudy; sea, high; wire angle, 00°, 00°.											87.60
0	15.42	33.53	5.84	319	0	15.42	33.53	5.84	24.77	319	0.00
10	14.98	33.48	5.81	313	10	14.98	33.48	5.81	24.83	313	0.03
30	14.94	33.55	5.76	307	20	14.96	33.52	5.79	24.86	310	0.06
60	14.42	33.51	5.74	300	30	14.94	33.55	5.76	24.89	307	0.09
70	13.70	33.49	5.50	287	50	14.86	33.55	5.74	24.90	306	0.15
80	12.09	33.48	4.81	258	75	12.62	33.48	5.02	25.32	266	0.23
					100	11.22	33.53	4.51	25.62	238	0.29
95	11.46	33.48	4.60	246	150	9.50	33.76	3.22	26.08	194	0.40
110	10.72	33.62	4.34	224	200	8.72	33.97	2.61	26.38	166	0.49
125	10.26	33.62	3.75	216	250	8.26	34.25	1.73	26.66	139	0.57
144	9.93	33.77	3.16	199	300	7.63	34.29	1.38	26.80	126	0.64
163	9.42	33.92	2.78	180	400	6.92	34.27	0.95	26.88	118	0.76
192	8.71	33.93	2.68	168	500	6.30	(34.24)		(26.94)	(113)	(0.88)
216	8.78	34.06	2.10	160	600	(5.65)					
268	8.02	34.28	1.61	133							
350	7.23	34.29	1.15	121							
456	6.57	34.25	0.66	115							
593	5.67	-	-								

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

87.70 PAOLINA-T; April 5, 1958; 1458 GCT; 32°39.5'N, 121°03'W; sounding, 2100 fm; wind, 300°, force 3; weather, partly cloudy; sea, very high; wire angle, 08°.

0	15.38	33.58	5.57	314	0	15.38	33.58	5.57	24.82	314	0.00
10	15.38	33.58	5.56	314	10	15.38	33.58	5.56	24.82	314	0.03
30	15.38	33.58	5.48	314	20	15.38	33.58	5.52	24.82	314	0.06
60	15.32	33.59	5.50	312	30	15.38	33.58	5.48	24.82	314	0.09
70	14.54	33.54	5.41	300	50	15.36	33.59	5.48	24.83	313	0.16
80	13.62	33.52	5.43	283	75	14.05	33.53	5.41	25.06	291	0.23
95	12.10	33.45	5.06	260	100	11.60	33.45	4.92	25.48	251	0.30
110	10.75	33.48	4.69	234	150	9.50	33.67	3.72	26.02	200	0.42
124	10.35	33.53	-	224	200	8.53	33.95	2.87	26.39	165	0.51
144	9.66	33.62	3.87	206	250	7.86	34.05	2.37	26.57	147	0.59
163	9.16	33.77	3.46	187	300	7.22	34.11	1.82	26.70	135	0.66
191	8.66	33.90	2.95	170	400	6.26	34.22	0.64	26.93	114	0.79
214	8.30	34.00	2.71	158	500	5.84	34.29	0.56	27.03	104	0.90
266	7.63	34.07	2.23	143	600	(5.45)	(34.35)	(0.63)	(27.13)	(94)	(1.01)
347	6.71	34.16	1.11	124							
452	6.03	34.25	0.56	109							
591	5.52	34.34	0.62	96							

90.28 PAOLINA-T; April 8, 1958; 0039 GCT; 33°28.5'N, 117°47'W; sounding, 210 fm; wind, 320°, force 4; weather, cloudy; sea, very rough; wire angle, 07°.

0	15.89	32.84	5.73	378	0	15.89	32.84	5.73	24.14	378	0.00
10	15.95	33.19	5.62	354	10	15.95	33.19	5.62	24.40	354	0.04
30	15.18	33.56	5.34	311	20	15.88	33.24	5.58	24.45	349	0.07
51	13.04	33.64	4.49	264	30	15.18	33.56	5.34	24.85	311	0.10
74	11.05	33.68	3.73	224	50	13.12	33.64	4.50	25.34	264	0.16
98	10.30	33.85	3.12	199	75	11.00	33.69	3.69	25.78	223	0.22
122	9.83	33.95	2.66	185	100	10.23	33.85	3.03	26.04	198	0.28
161	9.16	34.09	2.18	163	150	9.34	34.06	2.32	26.35	168	0.37
201	8.92	34.16	1.86	154	200	8.92	34.16	1.87	26.49	155	0.45

90.30 PAOLINA-T; April 8, 1958; 0247 GCT; 33°24.5'N, 117°55'W; sounding, 350 fm; wind, 300°, force 5; weather, partly cloudy; sea, very rough; wire angle, 25°.

0	15.69	33.43	5.19	332	0	15.69	33.43	5.19	24.63	332	0.00
9	15.70	33.38	5.51	336	10	15.70	33.38	5.51	24.59	336	0.03
27	15.46	33.55	5.51	318	20	15.62	33.40	5.51	24.62	333	0.07
36	14.11	33.55	5.19	290	30	14.82	33.55	5.35	24.92	305	0.10
45	13.20	33.57	5.09	271	50	12.45	33.57	4.77	25.42	257	0.15
54	12.08	33.57	4.52	251	75	11.02	33.59	4.08	25.70	230	0.22
63	11.66	33.58	4.31	243	100	10.24	33.76	3.34	25.97	204	0.27
76	10.96	33.59	4.05	230	150	9.07	33.96	2.56	26.32	172	0.37
91	10.46	33.69	3.54	214	200	8.73	34.10	1.85	26.48	156	0.45
104	10.18	33.77	3.26	203	250	8.43	34.19	1.67	26.60	145	0.53
126	9.64	33.86	-	188	300	8.17	34.24	1.31	26.68	137	0.60
152	9.04	33.97	2.51	171	400	7.26	34.27	0.79	26.83	123	0.73
182	8.82	34.06	1.93	161	500	6.43	34.30	0.44	26.97	110	0.85
226	8.54	34.16	1.74	149							
298	8.18	34.24	1.32	138							
389	7.34	34.27	0.85	124							
511	6.38	34.31	0.40	108							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta T_{10^{-5}}$ cm^3/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta T_{10^{-5}}$ cm^3/g	ΔD dyn. m
PAOLINA-T; April 8, 1958; 1805 GCT; 33°10.5'N, 118°23.5'W; sounding, 650 fm; wind, 270°, force 4; weather, clear; sea, very rough; wire angle, 12°.											90.37
0	15.22	33.53	5.64	315	0	15.22	33.53	5.64	24.81	315	0.00
10	15.08	33.50	5.44	314	10	15.08	33.50	5.44	24.82	314	0.03
30	15.04	33.52	5.67	312	20	15.06	33.51	5.53	24.84	312	0.06
39	14.92	33.53	5.41	308	30	15.04	33.52	5.67	24.84	312	0.09
49	13.70	33.54	4.95	283	50	13.60	33.54	4.93	25.16	282	0.15
58	13.02	33.53	4.74	271	75	12.28	33.52	4.53	25.41	258	0.22
68	12.64	33.52	4.47	265	100	10.60	33.56	4.60	25.74	226	0.28
83	10.83	33.55	4.79	230	150	9.67	33.91	2.67	26.17	186	0.39
97	10.64	33.55	-	227	200	8.86	34.14	1.90	26.49	155	0.47
111	10.34	33.68	3.92	212	250	8.34	34.20	1.59	26.62	143	0.55
136	9.88	33.81	2.92	196	300	8.02	34.25	1.28	26.70	135	0.62
163	9.47	34.01	2.41	174	400	7.34	34.26	0.77	26.81	125	0.75
196	8.92	34.14	1.92	156	500	6.62	34.30	0.46	26.95	112	0.88
244	8.37	34.19	1.61	144							
319	7.90	34.27	1.12	132							
415	7.24	34.26	0.74	124							
541	6.18	34.34	0.31	104							
PAOLINA-T; April 8, 1958; 2338 GCT; 32°55'N, 118°56.5'W; sounding, 935 fm; wind, 290°, force 6; weather, clear; sea, high; wire angle, 28°.											90.45
0	14.52	33.50	5.89	302	0	14.52	33.50	5.89	24.95	302	0.00
9	14.48	33.46	5.88	304	10	14.47	33.46	5.87	24.93	304	0.03
27	14.30	33.50	5.80	298	20	14.37	33.49	5.86	24.97	300	0.06
40	14.26	33.48	5.63	298	30	14.26	33.49	5.71	24.99	298	0.09
48	14.28	33.48	5.48	299	50	14.24	33.49	5.43	24.99	298	0.15
56	13.85	33.51	5.40	288	75	11.85	33.52	4.44	25.49	250	0.22
64	12.72	33.51	4.69	266	100	10.22	33.57	3.99	25.82	219	0.28
80	11.46	33.53	4.35	242	150	9.30	33.81	3.00	26.16	186	0.38
91	10.60	33.54	4.22	227	200	9.12	34.04	2.10	26.36	167	0.47
104	10.08	33.58	3.87	216	250	8.50	34.14	1.65	26.54	150	0.55
123	9.56	33.68	3.54	200	300	7.98	34.25	1.14	26.71	134	0.62
146	9.25	33.78	3.20	188	400	7.26	34.29	0.57	26.84	122	0.76
177	9.42	33.97	2.44	177	500	6.75	34.31	0.51	26.94	113	0.88
222	8.84	34.07	1.92	160							
291	8.07	34.24	1.25	136							
380	7.34	34.28	0.60	123							
510	6.68	34.32	0.50	112							
PAOLINA-T; April 12, 1958; 0315, 0334 GCT; 30°06'N, 124°38'W; sounding, 2000 fm; wind, 340°, force 5; weather, overcast; sea, high; wire angle, 12°, 12°.											90.130
0	16.94	33.82	5.15	330	0	16.94	33.82	5.15	24.65	330	0.00
10	16.92	33.77	4.97	334	10	16.92	33.77	4.97	24.61	334	0.03
29	16.86	33.78	5.10	331	20	16.89	33.77	5.03	24.63	332	0.07
59	16.86	33.82	5.02	329	30	16.86	33.78	5.09	24.64	331	0.10
68	16.86	33.85	5.03	326	50	16.86	33.80	5.04	24.65	330	0.16
78	16.88	33.84	5.02	327	75	16.87	33.85	5.02	24.68	327	0.25
					100	16.85	33.92	5.06	24.74	322	0.33
93	16.94	33.84	5.07	329	150	11.70	33.52	4.98	25.52	248	0.47
108	16.63	34.06	5.05	305	200	9.60	33.70	4.06	26.03	199	0.59
122	14.50	33.75	5.33	283	250	8.41	33.91	3.20	26.38	165	0.68
142	12.42	33.59	5.03	256	300	7.60	34.00	2.47	26.58	147	0.76
161	10.70	33.44	4.84	236	400	6.43	34.12	1.24	26.82	124	0.90
190	9.58	33.59	4.30	206	500	5.80	34.21	0.60	26.98	109	1.02
213	9.16	33.72	3.95	191	600	(5.30)	(34.30)	(0.32)	(27.12)	(96)	(1.13)
266	8.16	33.96	2.88	158							
347	6.98	34.06	1.85	134							
454	6.03	34.17	0.82	115							
592	5.36	34.29	0.33	98							

SIO

CCOFI 5804

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
90.145	PAOLINA-T; April 12, 1958; 1305 GCT; 29°36'N, 125°38'W; sounding, 2360 fm; wind, 330°, force 4; weather, overcast; sea, very rough; wire angle, 10°.										
0	17.47	34.06	5.19	325	0	17.47	34.06	5.19	24.70	325	0.00
10	17.46	34.04	5.40	326	10	17.46	34.04	5.40	24.69	326	0.03
30	17.46	34.04	5.39	326	20	17.46	34.04	5.39	24.69	326	0.06
55	17.50	34.06	5.45	327	30	17.46	34.04	5.39	24.69	326	0.10
64	17.50	34.08	5.34	326	50	17.49	34.06	5.43	24.69	326	0.16
74	17.49	34.09	5.33	323	75	17.49	34.09	5.32	24.72	324	0.24
84	17.50	34.06	5.26	327	100	17.51	34.06	5.34	24.68	327	0.33
98	17.50	34.06	5.33	327	150	14.49	33.90	5.15	25.26	272	0.48
113	17.53	34.05	-	327	200	11.13	33.66	4.80	25.73	227	0.61
131	16.61	34.04	5.46	307	250	9.55	33.78	4.09	26.10	192	0.72
150	14.49	33.90	5.15	272	300	8.55	34.02	3.18	26.44	160	0.81
174	12.46	33.69	5.03	249	400	6.90	34.14	1.62	26.78	128	0.96
197	11.30	33.66	4.86	230	500	5.91	34.18	1.03	26.94	113	1.09
244	9.64	33.76	4.16	196							
320	8.17	34.10	2.71	148							
417	6.70	34.14	1.48	125							
544	5.52	34.20	0.80	106							
93.27	PAOLINA-T; April 19, 1958; 0014 GCT; 32°56'N, 117°20'W; sounding, 227 fm; wind, 270°, force 2; weather, cloudy; sea, moderate; wire angle, 02°.										
0	17.80	33.37	5.66	383	0	17.80	33.37	5.66	24.10	383	0.00
11	17.30	33.41	5.68	368	10	17.35	33.41	5.67	24.24	369	0.04
30	14.50	33.55	5.20	298	20	15.70	33.51	5.54	24.70	325	0.07
50	13.36	33.55	5.10	276	30	14.50	33.55	5.20	24.99	298	0.10
75	11.34	33.58	4.16	236	50	13.36	33.55	5.10	25.22	276	0.16
100	10.67	33.68	3.66	218	75	11.34	33.58	4.16	25.64	236	0.22
123	9.64	33.81	3.26	192	100	10.67	33.68	3.66	25.83	218	0.28
162	9.01	33.84	3.15	180	150	9.10	33.83	3.17	26.21	182	0.38
202	8.78	34.02	2.48	163	200	8.80	34.02	2.48	26.40	164	0.47
250	8.32	34.07	2.14	152	250	8.32	34.07	2.14	26.52	152	0.55
299	8.26	34.23	1.31	140	300	(8.25)	(34.23)	(1.25)	(26.66)	(140)	(0.63)
93.30	PAOLINA-T; April 19, 1958; 0251 GCT; 32°50'N, 117°31.5'W; sounding, 430 fm; wind, calm; weather, overcast; sea, rough; wire angle, 02°.										
0	17.74	33.49	5.62	373	0	17.74	33.49	5.62	24.20	373	0.00
10	16.63	33.48	5.41	349	10	16.63	33.48	5.41	24.45	349	0.04
30	12.94	33.52	5.10	270	20	14.25	33.51	5.17	25.01	296	0.07
40	12.36	33.51	5.03	260	30	12.94	33.52	5.10	25.28	270	0.10
50	11.52	33.51	4.45	245	50	11.52	33.51	4.45	25.54	245	0.15
60	11.19	33.55	4.13	236	75	10.35	33.60	3.75	25.83	218	0.20
69	10.48	33.58	3.78	222	100	10.05	33.70	3.53	25.94	207	0.26
84	10.22	33.65	3.70	213	150	9.40	33.96	2.75	26.26	177	0.36
98	10.10	33.69	3.52	208	200	9.04	34.12	2.13	26.45	159	0.44
113	9.64	33.71	3.61	199	250	8.61	34.16	1.80	26.56	149	0.52
137	9.34	33.86	3.08	183	300	8.22	34.22	1.36	26.65	140	0.60
166	9.10	34.01	2.63	169	400	7.27	34.26	0.73	26.82	124	0.73
199	9.04	34.12	2.14	160	500	6.40	34.30	0.49	26.97	108	0.86
247	8.62	34.16	1.87	150							
324	8.01	34.25	1.12	135							
422	7.04	34.26	0.67	121							
550	6.10	34.33	0.43	104							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
PAOLINA-T; April 19, 1958; 0930 GCT; 32°30'N, 118°12'W; sounding, 920 fm; wind, 270°, force 2; weather, partly cloudy; sea, rough; wire angle, 10°.											93.40
0	16.50	33.60	5.55	337	0	16.50	33.60	5.55	24.58	337	0.00
10	16.49	33.61	5.61	336	10	16.49	33.61	5.61	24.59	336	0.03
30	15.73	33.58	5.65	322	20	16.10	33.59	5.61	24.68	327	0.07
40	15.40	33.56	5.77	316	30	15.73	33.58	5.65	24.74	322	0.10
49	14.62	33.53	5.60	302	50	14.55	33.53	5.56	24.95	302	0.16
59	13.70	33.55	5.04	282	75	12.23	33.52	4.77	25.41	258	0.23
68	12.85	33.55	4.91	266	100	10.78	33.62	3.94	25.76	225	0.29
82	11.77	33.49	4.59	251	150	9.62	33.83	2.88	26.13	190	0.40
96	10.98	33.58	4.10	230	200	9.05	33.98	1.41	26.33	170	0.49
111	10.40	33.69	3.54	213	250	8.30	34.12	1.78	26.56	149	0.57
134	9.87	33.78	3.11	198	300	7.74	34.17	1.03	26.68	137	0.64
163	9.45	33.88	2.72	184	400	7.00	34.28	0.21	26.87	119	0.78
195	9.12	33.96	2.47	173	500	6.25	34.32		27.01	106	0.89
242	8.40	34.11	1.88	150							
319	7.56	34.19	0.56	133							
413	6.92	34.29	0.19	117							
538	5.93	34.33	-	101							
PAOLINA-T; April 19, 1958; 1657 GCT; 32°10'N, 118°53'W; sounding, 820 fm; wind, 360°, force 4; weather, cloudy; sea, high; wire angle, 07°.											93.50
0	16.00	33.55	5.07	330	0	16.00	33.55	5.07	24.65	330	0.00
10	15.95	33.53	4.01	330	10	15.95	33.53	4.01	24.65	330	0.03
30	15.60	33.51	4.93	324	20	15.76	33.52	4.45	24.68	327	0.07
40	15.43	33.47	5.65	323	30	15.60	33.51	4.93	24.72	324	0.10
50	15.10	33.49	5.74	315	50	15.10	33.49	5.74	24.81	315	0.16
60	14.38	33.49	5.48	300	75	13.23	33.50	5.03	25.20	277	0.24
70	13.65	33.50	5.18	285	100	11.65	33.42	4.87	25.45	254	0.30
84	12.54	33.49	4.89	265	150	9.52	33.80	2.87	26.12	190	0.42
99	11.70	33.42	4.89	255	200	8.78	34.04	2.32	26.43	161	0.50
113	10.84	33.51	4.06	234	250	8.08	34.14	1.83	26.61	144	0.58
137	9.82	33.68	3.25	204	300	7.80	34.22	1.22	26.71	134	0.66
166	9.21	33.91	2.58	178	400	7.04	34.26	0.62	26.85	121	0.79
199	8.80	34.04	2.33	162	500	6.28	34.28	0.42	26.98	109	0.91
247	8.14	34.13	1.88	145							
324	7.66	34.24	1.05	131							
421	6.86	34.27	0.55	118							
549	5.98	34.29	0.39	105							
PAOLINA-T; April 20, 1958; 0020 GCT; 31°50'N, 119°33'W; sounding, 1120 fm; wind, 320°, force 6; weather, clear; sea, very high; wire angle, 20°.											93.60
0	16.38	33.58	5.47	336	0	16.38	33.58	5.47	24.59	336	0.00
11	16.35	33.55	5.58	337	10	16.35	33.55	5.58	24.58	337	0.03
29	16.22	33.56	5.47	334	20	16.27	33.56	5.47	24.60	335	0.07
57	15.67	33.51	5.61	326	30	16.22	33.56	5.47	24.62	333	0.10
66	15.54	33.49	5.55	324	50	15.93	33.54	5.55	24.66	329	0.17
75	15.32	33.51	5.58	318	75	15.32	33.51	5.58	24.78	318	0.25
90	13.55	33.55	5.22	280	100	12.54	33.50	4.99	25.34	264	0.32
103	12.24	33.49	4.92	260	150	10.00	33.60	3.93	25.88	213	0.44
117	11.22	33.49	4.60	241	200	9.05	34.02	2.32	26.36	167	0.54
134	10.80	33.58	4.13	228	250	8.20	34.10	2.04	26.56	149	0.62
152	9.92	33.60	3.90	212	300	7.70	34.21	1.20	26.72	134	0.69
178	9.31	33.82	3.09	186	400	6.86	34.35	0.43	26.95	112	0.82
197	9.11	34.02	2.33	168	500	6.25	34.34	0.34	27.02	105	0.93
245	8.23	34.09	2.07	150							
318	7.56	34.27	0.97	127							
416	6.80	34.35	0.41	111							
546	5.96	34.33	0.32	102							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

93.70 PAOLINA-T; April 20, 1958; 1551 GCT; 31°30'N, 120°29'W; sounding, 2050 fm; wind, 300°, force 4; weather, clear; sea, high; wire angle, 07°.

0	16.03	33.48	4.12	335	0	16.03	33.48	4.12	24.60	335	0.00
10	16.00	33.51	5.33	333	10	16.00	33.51	5.33	24.62	333	0.04
30	16.00	33.47	5.37	336	20	16.00	33.47	5.35	24.61	334	0.07
45	15.77	33.47	5.46	330	30	16.00	33.47	5.37	24.59	336	0.11
55	15.38	33.48	5.20	322	50	15.58	33.48	5.35	24.68	327	0.17
65	14.28	33.43	5.04	303	75	13.12	33.37	5.52	25.13	284	0.25
75	13.12	33.37	5.52	284	100	10.75	33.37	4.54	25.58	242	0.32
95	11.13	33.35	4.59	250	150	8.86	33.79	2.96	26.21	182	0.42
109	10.20	33.43	4.48	228	200	8.34	33.99	2.33	26.46	158	0.51
124	9.58	33.51	3.97	213	250	7.70	34.05	1.82	26.60	145	0.59
148	8.94	33.75	3.10	186	300	7.20	34.12	1.20	26.72	134	0.66
176	8.64	33.97a)	2.59	165	400	6.60	34.19	0.67	26.86	120	0.79
214	8.15	34.00	2.23	155	500	5.95	34.25	0.39	26.99	108	0.91
266	7.52	34.07	1.60	141	600	(5.25)	(34.31)		(27.12)	(95)	(1.02)
346	6.92	34.16	0.97	126							
447	6.30	34.22	0.51	114							
589	5.37	34.31	0.32	96							

93.80 PAOLINA-T; April 20, 1958; 2148 GCT; 31°11'N, 120°53'W; sounding, 2060 fm; wind, 320°, force 5; weather, clear; sea, high; wire angle, 16°.

0	16.35	33.57	5.57	336	0	16.35	33.57	5.57	24.59	336	0.00
10	16.28	33.50	5.51	339	10	16.28	33.50	5.51	24.56	339	0.03
29	16.10	33.52	5.62	334	20	16.17	33.51	5.58	24.59	336	0.07
43	15.85	33.53	5.69	328	30	16.10	33.52	5.62	24.61	334	0.10
53	14.98	33.40	5.72	319	50	15.20	33.43	5.71	24.75	321	0.17
62	14.81	33.42	5.69	314	75	14.45	33.41	5.75	24.88	308	0.24
72	14.65	33.42	5.78	311	100	10.86	33.37	4.93	25.54	245	0.32
92	12.03	33.36	5.26	265	150	9.18	33.69	3.57	26.08	194	0.43
105	10.62	33.38	4.82	240	200	8.56	33.93	2.59	26.38	166	0.52
119	10.17	33.52	4.29	221	250	7.95	33.98	2.20	26.50	154	0.60
142	9.29	33.63	3.73	200	300	7.38	34.03	1.71	26.63	142	0.68
170	9.00	33.86	3.08	178	400	6.39	34.18	0.77	26.88	118	0.81
206	8.46	33.94	2.54	164	500	5.75	34.25	0.43	27.01	106	0.93
258	7.84	33.99	2.15	151							
337	6.95	34.09	1.31	132							
436	6.13	34.22	0.58	112							
574	5.39	34.27	0.34	100							

93.145 PAOLINA-T; April 12, 1958; 1827 GCT; 29°01'N, 125°19'W; sounding, 2350 fm; wind, 330°, force 4; weather, overcast; sea, rough; wire angle, 05°.

0	17.32	33.96	5.19	329	0	17.32	33.96	5.19	24.66	329	0.00
10	17.28	33.89	5.46	333	10	17.28	33.89	5.46	24.62	333	0.03
30	17.28	33.94	5.43	329	20	17.28	33.92	5.45	24.64	331	0.07
60	17.28	33.95	5.38	328	30	17.28	33.94	5.43	24.66	329	0.10
70	17.29	33.96	5.30	328	50	17.28	33.94	5.40	24.66	329	0.16
80	17.28	33.95	5.41	328	75	17.28	33.95	5.35	24.67	328	0.25
94	17.64	34.13	5.27	324	100	17.62	34.13	5.38	24.72	324	0.33
108	17.50	34.12	5.47	322	150	14.18	33.84	5.28	25.28	270	0.48
123	16.96	34.05	5.40	314	200	11.00	33.66	4.86	25.76	225	0.61
141	15.20	33.94	5.30	284	250	9.10	33.86	3.64	26.24	179	0.71
160	13.72	33.81	5.26	263	300	8.27	34.01	2.72	26.48	156	0.80
188	11.87	33.68	5.03	238	400	7.01	34.10	1.74	26.72	133	0.95
211	10.23	33.64	4.66	214	500	5.99	34.16	1.07	26.92	115	1.08
262	8.88	33.91	3.37	173	600	(5.22)	(34.23)		(27.06)	(101)	(1.20)
343	7.68	34.07	2.22	143							
448	6.44	34.12	1.37	124							
584	5.37	34.22	0.62	103							

a) Broken bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10 cm/g	ΔD dyn. m

PAOLINA-T; April 22, 1958; 1410 GCT; 32°15.5'N, 117°08.5'W; sounding, 30 fm; wind, 250°, force 4; weather, overcast; sea, rough; wire angle, 17°. 97.30

0	17.96	33.49	5.61	378	0	17.96	33.49	5.61	24.14	378	0.00
10	16.66	33.48	5.97	349	10	16.66	33.48	5.97	24.45	349	0.04
29	15.22	33.48	5.91	318	20	16.43	33.48	5.97	24.50	344	0.07
39	14.48	33.49	5.82	302	30	15.15	33.48	5.90	24.79	317	0.10
48	12.70	33.49	5.09	268							

PAOLINA-T; April 22, 1958; 1224 GCT; 32°12.5'N, 117°17'W; sounding, 420 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 05°. 97.32

0	19.00	33.60	5.03	394	0	19.00	33.60	5.03	23.98	394	0.00
10	16.72	33.58	6.87	343	10	16.72	33.58	6.87	24.52	343	0.04
30	15.58	33.58	5.57	318	20	15.75	33.58	5.63	24.74	322	0.07
40	14.30	33.55	5.62	294	30	15.58	33.58	5.57	24.78	318	0.10
50	12.96	33.48	4.96	273	50	12.96	33.48	4.96	25.25	273	0.16
61	11.64	33.47	4.55	250	75	10.70	33.50	4.22	25.68	232	0.22
71	10.96	33.49	4.31	237	100	9.70	33.58	3.85	25.92	210	0.28
85	10.24	33.52	4.09	223	150	8.85	33.84	3.03	26.25	178	0.38
100	9.70	33.58	3.85	210	200	8.17	33.99	2.30	26.48	156	0.46
114	9.57	33.66	3.33	202	250	7.43	34.03	1.87	26.62	143	0.54
139	9.09	33.79	3.14	185	300	7.00	34.08	1.42	26.71	134	0.61
168	8.59	33.89	2.85	170	400	6.73	34.20	0.54	26.85	121	0.74
200	8.17	33.99	2.30	156	500	6.26	34.31	0.35	26.99	108	0.86
247	7.48	34.03	1.90	144							
323	6.85	34.11	1.17	130							
418	6.68	34.25	0.49	117							
544	5.88	34.33	0.28	101							

PAOLINA-T; April 22, 1958; 0630 GCT; 31°55.5'N, 117°50'W; sounding, 650 fm; wind, 320°, force 5; weather, clear; sea, very rough; wire angle, 16°. 97.40

0	18.18	33.57	5.28	377	0	18.18	33.57	5.28	24.16	372	0.00
10	16.56	33.53	5.76	343	10	16.56	33.53	5.76	24.52	343	0.04
29	15.32	33.55	5.78	315	20	15.70	33.54	5.78	24.72	324	0.07
43	13.79	33.53	5.55	285	30	15.28	33.55	5.76	24.82	314	0.10
53	12.55	33.53	4.89	262	50	12.82	33.53	5.04	25.32	266	0.16
62	11.80	33.53	4.47	248	75	11.30	33.54	4.14	25.61	239	0.22
72	11.40	33.53	4.20	242	100	10.63	33.59	3.75	25.77	224	0.28
91	10.82	33.57	3.95	229	150	9.27	33.84	3.18	26.19	184	0.38
105	10.52	33.61	3.64	220	200	8.17	34.02	2.26	26.50	154	0.47
119	9.88	33.65	3.57	208	250	7.45	34.06	1.80	26.63	142	0.54
142	9.35	33.77	3.36	190	300	6.99	34.10	1.31	26.74	132	0.62
169	8.69	33.93	2.74	169	400	6.30	34.22	0.65	26.92	114	0.74
205	8.11	34.03	2.22	152	500	5.81	34.30	0.32	27.05	102	0.86
255	7.40	34.06a)	1.76	140							
332	6.78	34.14	1.09	126							
429	6.15	34.25	0.51	110							
566	5.64	34.35	0.28	97							

a) Loose bottle cap; value falls on property curve.

S10

CCOFI 5804

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
97.50	PAOLINA-T; April 21, 1958; 2339 GCT; 31°36'N, 118°31'W; sounding, 1335 fm; wind, 320°, force 5; weather, clear; sea, very rough; wire angle, 25°.										
0	17.32	33.60	5.41	355	0	17.32	33.60	5.41	24.39	355	0.00
9	16.97	33.58	4.99	348	10	16.93	33.58	4.99	24.46	348	0.04
27	15.31	33.55	5.12	315	20	16.50	33.57	5.01	24.56	338	0.07
42	14.96	33.48	5.12	313	30	15.22	33.53	5.12	24.82	314	0.10
50	14.49	33.49	5.55	302	50	14.49	33.49	5.55	24.94	302	0.16
60	12.98	33.48	4.19	274	75	11.59	33.48	4.27	25.50	249	0.23
69	12.02	33.48	4.55	256	100	10.11	33.60	3.63	25.87	214	0.29
86	10.84	33.49	3.70	235	150	9.16	33.92	2.68	26.27	176	0.39
98	10.18	33.58	3.66	217	200	8.74	34.12	1.86	26.49	155	0.48
110	9.98	33.65	3.57	209	250	8.22	34.19	1.33	26.63	142	0.55
130	9.63	33.78	3.17	194	300	7.60	34.22	0.93	26.74	131	0.62
152	9.14	33.93	2.67	175	400	6.54	34.31	0.49	26.96	110	0.75
183	8.92	34.03	2.10	164	500	6.12	34.34	0.37	27.03	104	0.86
225	8.44	34.18	1.53	146							
295	7.64	34.22	0.98	132							
382	6.64	34.30	0.53	112							
510	6.10	34.34	0.36	103							
97.60	PAOLINA-T; April 21, 1958; 1753 GCT; 31°19'N, 119°05.5'W; sounding, 1820 fm; wind, 320°, force 4; weather, clear; sea, high; wire angle, 17°.										
0	16.52	33.57	5.61	340	0	16.52	33.57	5.61	24.55	340	0.00
10	16.18	33.55	5.55	333	10	16.18	33.55	5.55	24.62	333	0.03
29	16.12	33.53	5.42	333	20	16.16	33.54	5.51	24.62	333	0.07
43	15.93	33.54	5.35	328	30	16.09	33.53	5.40	24.62	333	0.10
53	15.53	33.47	5.69	325	50	15.70	33.51	5.52	24.69	326	0.17
62	14.30	33.40	5.73	305	75	12.86	33.47	5.04	25.25	273	0.24
71	13.31	33.45	5.19	282	100	10.93	33.52	4.35	25.66	234	0.31
89	11.52	33.50	4.61	246	150	9.40	33.82	2.97	26.16	187	0.42
102	10.84	33.53	4.31	232	200	8.67	34.05	2.29	26.45	159	0.50
115	10.32	33.58	4.02	220	250	8.26	34.15	1.58	26.59	146	0.58
136	9.70	33.69	3.36	202	300	7.87	34.20	1.15	26.68	137	0.65
162	9.20	33.90	2.82	178	400	6.96	34.28	0.56	26.88	118	0.78
195	8.76	34.02	2.40	162	500	6.25	34.31	0.36	27.00	106	0.90
244	8.31	34.14	1.66	147							
317	7.73	34.22	1.06	133							
409	6.86	34.29	0.52	116							
540	6.00	34.32	0.32	103							
97.70	PAOLINA-T; April 21, 1958; 1045, 1101 GCT; 30°56'N, 119°51'W; sounding, 1930 fm; wind, 320°, force 5; weather, clear; sea, high; wire angle, 05°, 05°.										
0	16.26	33.49	5.43	339	0	16.26	33.49	5.43	24.55	339	0.00
10	16.20	33.52	5.44	336	10	16.20	33.52	5.44	24.59	336	0.03
					20	16.14	33.54	5.40	24.62	333	0.07
30	15.93	33.58	5.37	326	30	15.93	33.58	5.37	24.70	326	0.10
60	15.05	33.54	5.50	311	50	15.36	33.55	5.46	24.80	316	0.16
70	14.76	33.53	5.40	305	75	14.40	33.52	5.36	24.98	298	0.24
79	13.79	33.50	5.34	288	100	11.45	33.43	4.91	25.49	250	0.31
93	11.91	33.44	4.84	257	150	9.22	33.66	3.66	26.06	196	0.42
108	10.94	33.43	5.00	241	200	8.25	33.96	2.58	26.44	160	0.51
122	10.01	33.50	4.42	221	250	7.60	34.07	2.02	26.63	142	0.59
141	9.54	33.58	3.99	207	300	7.09	34.12	1.53	26.74	132	0.66
161	8.96	33.77	3.35	184	400	6.35	34.20	0.81	26.90	116	0.79
188	8.46	33.91	2.84	166	500	5.75	34.26	0.46	27.02	105	0.91
212	8.14	34.00	2.44	155	600	(5.25)	(34.35)	(0.42)	(27.15)	(92)	(1.01)
264	7.42	34.09	1.86	139							
346	6.77	34.16	1.19	124							
453	6.00	34.23	0.53	110							
590	5.30	34.34	0.42	93							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

PAOLINA-T; April 21, 1958; 0353 GCT; 30°36'N, 120°31'W; sounding, 2100 fm; wind, 330°, force 5; weather, clear; sea, very rough; wire angle, 10°. 97.80

0	16.10	33.39	5.55	343	0	16.10	33.39	5.55	24.52	343	0.00
10	16.05	33.41	5.52	341	10	16.05	33.41	5.52	24.54	341	0.03
30	15.81	33.37	5.48	339	20	15.96	33.40	5.50	24.55	340	0.07
45	15.55	33.38	5.55	332	30	15.81	33.37	5.48	24.56	339	0.10
55	15.32	33.39	5.66	327	50	15.42	33.39	5.62	24.66	329	0.17
74	15.10	33.40	5.59	321	75	15.08	33.40	5.58	24.75	321	0.25
94	14.00	33.40	5.48	299	100	13.40	33.39	5.46	25.08	289	0.33
108	12.44	33.37	5.46	272	150	9.60	33.50	4.19	25.87	214	0.45
122	11.16	33.38	4.68	248	200	8.62	33.81	2.82	26.27	176	0.55
147	9.72	33.48	4.24	217	250	7.98	34.01	2.10	26.53	152	0.64
174	8.87	33.68	3.36	189	300	7.20	34.04	1.67	26.66	139	0.71
212	8.50	33.88	2.59	169	400	6.16	34.14	0.92	26.88	118	0.85
263	7.76	34.03	1.94	148	500	5.70	34.26	0.40	27.03	104	0.96
342	6.66	34.05	1.42	132	600	(5.25)	(34.35)		(27.16)	(92)	(1.07)
442	5.92	34.21	0.62	110							
582	5.36	34.34	0.11	94							

PAOLINA-T; April 13, 1958; 0032 GCT; 28°26.5'N, 124°47'W; sounding, 2330 fm; wind, 330°, force 2; weather, cloudy; sea, rough; wire angle, 00°. 97.145

0	18.84	34.32	5.36	338	0	18.84	34.32	5.36	24.56	338	0.00
10	18.27	34.27	5.36	328	10	18.27	34.27	5.36	24.67	328	0.03
30	18.22	34.28	5.32	327	20	18.23	34.28	5.34	24.68	327	0.07
55	18.22	34.27	5.37	327	30	18.22	34.28	5.32	24.68	327	0.10
65	18.22	34.29	5.29	326	50	18.22	34.27	5.34	24.68	327	0.16
75	18.23	34.30	5.36	326	75	18.23	34.30	5.36	24.69	326	0.24
85	18.23	34.27	5.34	327	100	18.16	34.34	5.32	24.76	320	0.33
100	18.16	34.34	5.32	320	150	14.46	33.92	5.07	25.28	270	0.48
116	16.94	34.13	5.32	308	200	10.85	33.68	4.38	25.80	221	0.60
134	15.46	33.96	5.23	288	250	9.26	33.91	3.36	26.24	178	0.70
154	14.42	33.93	5.05	269	300	8.33	34.01	2.92	26.47	157	0.79
179	12.50	33.77	4.90	244	400	6.89	34.12	1.50	26.76	129	0.94
202	10.76	33.68	4.32	219	500	5.99	34.18	0.85	26.94	113	1.07
249	9.30	33.91	3.39	179							
326	7.94	34.05	2.66	148							
422	6.63	34.14	1.29	124							
549	5.58	34.22	0.68	105							

PAOLINA-T; April 16, 1958; 0700 GCT; 31°41'N, 116°46.5'W; sounding, 260 fm; wind, calm; weather, clear; sea, moderate; wire angle, 09°. 100.30

0	17.54	33.52	5.87	366	0	17.54	33.52	5.87	24.27	366	0.00
10	16.84	33.50	5.90	352	10	16.84	33.50	5.90	24.42	352	0.04
30	14.98	33.55	5.82	308	20	15.60	33.54	5.88	24.74	322	0.07
50	12.52	33.57	4.60	258	30	14.98	33.55	5.82	24.88	308	0.10
74	10.38	33.50	4.45	226	50	12.52	33.57	4.60	25.40	258	0.16
99	9.90	33.68	4.04	205	75	10.35	33.50	4.45	25.75	225	0.22
123	9.67	33.84	3.31	190	100	9.86	33.69	4.04	25.96	205	0.27
161	9.52	34.06	2.37	171	150	9.45	33.96	3.18	26.26	177	0.37
197	9.18	34.14	2.00	160	200	9.07	34.14	1.98	26.46	158	0.45
245	8.90	34.20	1.63	151	250	8.84	34.22	1.55	26.56	149	0.53
292	8.32	34.29	1.03	136	300	8.22	34.29	0.99	26.70	135	0.60
391	7.09	34.27	0.68	121	400	(6.98)	(34.27)	(0.64)	(26.87)	(119)	(0.74)

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	$\delta_{T_3}^{-5}$	Z	T	S	O_2	σ_t	$\delta_{T_3}^{-5}$	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

100.35 PAOLINA-T; April 16, 1958; 0353 GCT; 31°30'N, 117°00.5'W; sounding, 660 fm; wind, 320°, force 2; weather, clear; sea, rough; wire angle, 10°.

0	17.35	33.58	5.62	358	0	17.35	33.58	5.62	24.36	358	0.00
10	16.77	33.56	5.68	346	10	16.77	33.56	5.68	24.48	346	0.04
30	15.68	33.57	5.73	322	20	16.10	33.57	5.70	24.64	331	0.07
40	15.12	33.56	5.80	310	30	15.68	33.57	5.73	24.74	322	0.10
49	14.01	33.53	5.77	290	50	13.95	33.53	5.74	25.08	289	0.16
59	13.47	33.49	5.50	282	75	12.20	33.48	5.03	25.40	259	0.23
69	12.90	33.49	-	271	100	10.77	33.51	4.55	25.67	233	0.29
83	11.24	33.48	4.72	242	150	9.36	33.85	3.15	26.18	184	0.40
98	10.86	33.50	4.58	235	200	8.35	33.96	2.77	26.42	162	0.49
112	10.06	33.57	4.17	216	250	7.62	34.05	2.26	26.61	144	0.57
136	9.66	33.74	3.42	197	300	7.25	34.09	1.80	26.69	136	0.64
165	9.00	33.90	2.95	176	400	6.35	34.20	0.84	26.90	116	0.77
197	8.40	33.95	2.81	163	500	5.98	34.30	0.40	27.02	105	0.88
244	7.71	34.04	2.32	146							
322	7.05	34.12	1.49	131							
418	6.23	34.22	0.76	113							
544	5.90	34.33	0.32	101							

100.40 PAOLINA-T; April 15, 1958; 2325 GCT; 31°21'N, 117°24'W; sounding, 1085 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 10°.

0	17.10	33.49	5.57	358	0	17.10	33.49	5.57	24.36	358	0.00
10	16.00	33.49	5.63	334	10	16.00	33.49	5.63	24.61	334	0.03
30	15.48	33.50	5.63	323	20	15.72	33.49	5.63	24.68	327	0.07
54	15.00	33.51	5.70	312	30	15.48	33.50	5.63	24.73	323	0.10
64	13.80	33.42	5.75	294	50	15.03	33.51	5.68	24.83	313	0.16
74	12.57	33.40	5.26	272	75	12.43	33.40	5.22	25.28	270	0.24
83	11.85	33.45	5.10	255	100	10.98	33.48	4.34	25.62	238	0.30
99	11.02	33.48	4.38	239	150	9.54	33.85	2.97	26.15	187	0.41
113	10.50	33.53	-	226	200	8.82	33.97	2.53	26.36	167	0.50
131	10.02	33.71	3.50	205	250	7.86	34.05	2.37	26.57	148	0.58
149	9.57	33.85	3.01	187	300	7.32	34.09	1.84	26.68	137	0.65
174	9.16	33.94	2.66	174	400	6.40	34.17	0.90	26.87	119	0.78
197	8.86	33.96	2.53	169	500	5.88	34.26	0.50	27.00	106	0.90
245	7.96	34.05	2.44	149							
321	7.05	34.11	1.53	132							
416	6.32	34.19	0.81	116							
542	5.72	34.29	0.42	102							

100.50 PAOLINA-T; April 15, 1958; 1654 GCT; 31°01'N, 118°07.5'W; sounding, 950 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 15°.

0	16.53	33.49	5.66	345	0	16.53	33.49	5.66	24.49	345	0.00
10	16.48	33.47	5.68	346	10	16.48	33.47	5.68	24.48	346	0.03
29	16.45	33.58	5.67	337	20	16.46	33.53	5.68	24.53	342	0.07
53	16.40	33.63	5.61	332	30	16.44	33.58	5.66	24.58	337	0.10
62	16.37	33.64a)	5.66	331	50	16.41	33.62	5.61	24.61	334	0.17
72	16.08	33.55	5.67	372	75	15.96	33.55	5.68	24.66	329	0.25
81	15.60	33.55	-	321	100	13.94	33.55	5.65	25.10	287	0.33
94	14.28	33.66b)	5.82		150	10.10	33.52	4.30	25.80	220	0.46
108	12.54	33.38	5.48	273	200	9.29	33.91	2.79	26.24	179	0.56
127	10.85	33.37	5.09	244	250	8.16	34.04	2.32	26.52	153	0.64
145	10.22	33.48	4.48	225	300	7.55	34.08	1.87	26.64	141	0.72
168	9.82	33.73	3.76	201	400	6.56	34.16	0.93	26.84	122	0.86
191	9.46	33.86	3.04	186	500	5.83	34.23		26.99	108	0.98
237	8.32	34.02	2.44	156							
311	7.42	34.09	1.77	138							
405	6.53	34.17	0.91	120							
530	5.64	34.25	-	104							

a) Loose bottle cap; value falls on property curve.
b) Broken bottle cap; value does not fall on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T} 10^{-5} cm^3/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T} 10^{-5} cm^3/g	ΔD dyn. m

100.60 PAOLINA-T; April 15, 1958; 1041 GCT; 30°45.5'N, 118°46'W; sounding, 1550 fm; wind, 360°, force 4; weather, clear; sea, very rough; wire angle, 08°.

0	16.42	33.43	5.63	348	0	16.42	33.43	5.63	24.46	348	0.00
10	16.40	33.40	5.63	349	10	16.40	33.40	5.63	24.45	349	0.03
30	15.76	33.40	5.66	335	20	16.38	33.40	5.63	24.45	349	0.07
45	15.72	33.41	5.70	334	30	15.76	33.40	5.66	24.60	335	0.10
55	15.52	33.42	5.66	328	50	15.62	33.42	5.68	24.64	331	0.17
65	15.22	33.40	5.73	324	75	15.10	33.45	5.72	24.78	318	0.25
75	15.10	33.45	5.72	318	100	12.22	33.43	5.39	25.36	263	0.33
94	12.77	33.43	5.51	273	150	9.35	33.62	4.03	26.01	201	0.44
108	11.54	33.44	5.22	250	200	8.63	33.87	2.89	26.31	172	0.54
123	10.29	33.46	4.80	228	250	7.80	34.00	2.23	26.55	150	0.62
146	9.41	33.61	4.10	203	300	7.20	34.06	1.74	26.67	138	0.69
174	8.98	33.70	3.54	189	400	6.47	34.22	0.87	26.90	116	0.82
211	8.48	33.96	2.64	163	500	5.80	34.29	0.52	27.04	103	0.94
264	7.56	34.02	2.11	146	600	(5.20)	(34.32)		(27.14)	(94)	(1.04)
344	6.87	34.13	1.30	128							
445	6.11	34.26	0.64	109							
587	5.32	34.32	0.35	95							

100.70 PAOLINA-T; April 15, 1958; 0433 GCT; 30°22.5'N, 119°20.5'W; sounding, 2000 fm; wind, 360°, force 5; weather, clear; sea, very rough; wire angle, 08°.

0	16.22	33.46	5.70	341	0	16.22	33.46	5.70	24.54	341	0.00
10	16.20	33.42	5.71	343	10	16.20	33.42	5.71	24.51	343	0.03
30	15.50	33.43	5.72	328	20	15.55	33.43	5.72	24.66	329	0.07
59	14.70	33.44	5.89	310	30	15.50	33.43	5.72	24.67	328	0.10
69	13.55	33.42	5.66	288	50	15.23	33.43	5.78	24.74	322	0.16
79	12.68	33.39	5.50	275	75	13.20	33.41	5.57	25.14	283	0.24
93	11.01	33.34	5.16	249	100	10.45	33.37	5.00	25.63	237	0.31
108	10.07	33.40	4.85	230	150	9.05	33.69	3.53	26.11	191	0.42
122	9.71	33.44	-	220	200	8.35	33.92	2.50	26.40	164	0.51
141	9.26	33.57	4.02	204	250	7.64	34.03	1.96	26.58	146	0.59
160	8.83	33.78	3.17	182	300	7.17	34.11	1.53	26.72	134	0.66
189	8.50	33.88	2.63	169	400	6.38	34.20	0.76	26.90	116	0.79
212	8.18	33.95	2.34	159	500	5.80	34.26	0.46	27.02	105	0.90
265	7.49	34.06	1.85	142	600	(5.20)	(34.36)		(27.17)	(91)	(1.01)
346	6.77	34.16	1.16	124							
452	6.02	34.22	0.55	111							
589	5.28	34.34	0.37	94							

100.80 PAOLINA-T; April 14, 1958; 2158 GCT; 30°01'N, 120°07'W; sounding, 2120 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 15°.

0	16.30	33.49	5.57	341	0	16.30	33.49	5.57	24.54	341	0.00
10	16.20	33.48	5.66	339	10	16.20	33.48	5.66	24.56	339	0.03
29	16.28	33.58	5.50	334	20	16.23	33.53	5.60	24.59	336	0.07
58	16.35	33.62	5.53	332	30	16.28	33.58	5.50	24.62	333	0.10
68	16.06	33.57	5.58	329	50	16.35	33.61	5.52	24.63	332	0.17
77	15.30	33.38	5.65	327	75	15.37	33.40	5.65	24.67	328	0.25
92	15.48	33.52	5.65	321	100	15.72	33.64	5.70	24.79	317	0.33
106	15.02	33.57	5.70	308	150	10.20	33.48	4.58	25.76	225	0.47
120	12.71	33.46	5.46	270	200	8.81	33.82	3.38	26.25	178	0.57
139	11.22	33.42	5.19	247	250	8.00	34.01	2.56	26.52	152	0.66
157	9.78	33.53	4.27	214	300	7.55	34.12	1.79	26.67	138	0.73
185	9.06	33.74	3.70	188	400	6.65	34.20	1.16	26.86	120	0.86
207	8.72	33.85	3.28	174	500	5.80	34.25	0.77	27.01	106	0.98
259	7.88	34.03	2.42	150							
337	7.29	34.17	1.40	131							
440	6.24	34.21	1.03	114							
574	5.36	34.29	0.41	98							

SIO

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5804

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
100.90	PAOLINA-T; April 14, 1958; 1517 GCT; 29°40'N, 120°52'W; sounding, 2120 fm; wind, 020°, force 4; weather, partly cloudy; sea, rough; wire angle, 08°.										
0	16.62	33.72	5.65	331	0	16.62	33.72	5.65	24.64	331	0.00
10	16.62	33.70	5.62	332	10	16.62	33.70	5.62	24.63	332	0.03
30	16.58	33.69	5.61	332	20	16.61	33.70	5.62	24.63	332	0.07
60	16.55	33.68	5.62	332	30	16.58	33.69	5.61	24.63	332	0.10
69	16.48	33.67	5.60	332	50	16.56	33.69	5.62	24.63	332	0.16
79	16.43	33.64	5.61	332	75	16.45	33.65	5.61	24.63	332	0.25
94	15.74	33.53	5.66	326	100	15.00	33.39	5.76	24.76	320	0.33
109	14.84	33.37	5.77	319	150	11.53	33.44	5.24	25.48	251	0.48
123	14.19	33.52	-	294	200	9.64	33.65	3.96	25.98	203	0.59
143	11.92	33.43	5.34	258	250	8.75	33.96	2.70	26.37	167	0.69
162	10.90	33.45	4.99	239	300	7.98	34.07	2.09	26.58	147	0.77
190	9.84	33.60	4.26	211	400	6.82	34.18	1.26	26.82	124	0.91
213	9.40	33.72	3.43	195	500	6.02	34.24	0.68	26.96	110	1.03
265	8.47	34.03	2.43	158	600	(5.48)	(34.25)		(27.05)	(102)	(1.15)
344	7.40	34.11	1.76	137							
450	6.39	34.22	0.90	115							
585	5.52	34.25	0.42	102							
100.100	PAOLINA-T; April 14, 1958; 0718 GCT; 29°21'N, 121°26'W; sounding, 2360 fm; wind, 330°, force 4; weather, partly cloudy; sea, very rough; wire angle, 15°.										
0	16.66	33.62	5.52	339	0	16.66	33.62	5.52	24.56	339	0.00
10	16.58	33.60	5.53	338	10	16.58	33.60	5.53	24.57	338	0.03
29	16.39	33.58	5.54	336	20	16.45	33.59	5.54	24.58	337	0.07
58	16.38	33.62	5.60	333	30	16.38	33.59	5.54	24.60	335	0.10
68	16.36	33.60	5.60	334	50	16.38	33.61	5.55	24.62	333	0.17
77	16.03	33.58	5.66	328	75	16.17	33.59	5.63	24.65	330	0.25
92	14.51	33.45	5.77	306	100	13.55	33.45	5.56	25.10	287	0.33
106	12.80	33.46	5.31	272	150	11.26	33.86	2.15	26.86	215	0.45
121	11.59	33.51	4.42	246	200	10.75	34.01	1.60	26.07	195	0.56
141	11.38	33.83	2.36	219	250	10.22	34.14	1.46	26.26	177	0.65
159	11.16	33.89	2.00	211	300	9.62	34.24	1.32	26.45	159	0.74
188	10.86	33.96	1.76	201	400	8.20	34.29	0.96	26.71	135	0.89
211	10.66	34.04	1.54	191	500	6.90	34.30	0.66	26.91	116	1.02
263	10.07	34.17	1.44	172	600	(5.90)	(34.33)		(27.06)	(101)	(1.14)
343	9.02	34.29	1.16	147							
447	7.46	34.29	0.80	124							
582	6.07	34.33	0.42	104							
100.110	PAOLINA-T; April 14, 1958; 0212 GCT; 29°04'N, 122°02'W; sounding, 2200 fm; wind, 330°, force 3; weather, partly cloudy; sea, rough; wire angle, 03°.										
0	18.18	33.77	5.50	362	0	18.18	33.77	5.50	24.31	362	0.00
10	17.18	33.77	5.56	340	10	17.18	33.77	5.56	24.55	340	0.04
30	17.09	33.82	5.50	334	20	17.11	33.78	5.51	24.58	337	0.07
55	17.04	33.83	5.49	331	30	17.09	33.82	5.50	24.61	334	0.10
65	17.02	33.82	5.50	332	50	17.06	33.82	5.49	24.63	332	0.17
75	17.00	33.80	5.52	334	75	17.00	33.80	5.52	24.61	334	0.25
85	16.98	33.78	5.53	334	100	17.07	33.87	5.52	24.66	330	0.34
99	17.05	33.87	5.52	330	150	13.12	33.74	5.15	25.42	257	0.48
114	16.08	33.86	5.56	309	200	9.70	33.64	4.32	25.96	205	0.60
132	14.54	33.79	5.45	281	250	8.75	33.88	3.42	26.30	173	0.70
151	13.04	33.74	5.13	256	300	8.06	34.03	2.54	26.53	152	0.78
175	11.46	33.64	4.76	234	400	6.92	34.13	1.38	26.77	129	0.93
199	9.72	33.64	4.33	206	500	6.08	34.20	0.73	26.94	113	1.06
247	8.80	33.86	3.55	175							
325	7.78	34.09	2.13	143							
422	6.68	34.14	1.18	125							
550	5.71a)	34.25	0.50	105							

a) Mean value of 5.65 and 5.77°C.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

PAOLINA-T; April 13, 1958; 2052 GCT; 28°50'N, 122°41'W; sounding, 2250 fm; wind, 320°, force 2; weather, partly cloudy; sea, rough; wire angle, 00°. 100.120

0	17.72	34.02	5.49	334	0	17.72	34.02	5.49	24.61	334	0.00
10	17.54	34.00	5.44	330	10	17.54	34.00	5.44	24.65	330	0.03
30	17.50	34.01	5.40	329	20	17.50	34.00	5.42	24.65	330	0.07
55	17.55	34.04	5.44	328	30	17.50	34.01	5.40	24.66	329	0.10
65	17.58	34.06	5.39	328	50	17.54	34.02	5.43	24.66	329	0.16
75	17.62	34.09	5.46	327	75	17.62	34.09	5.46	24.68	327	0.25
85	17.68	34.09	5.43	327	100	17.64	34.09	5.42	24.68	327	0.33
100	17.64	34.09	5.42	327	150	13.50	33.74	5.24	25.34	264	0.48
115	17.51	34.16	5.38	318	200	10.37	33.68	4.48	25.88	213	0.60
134	14.53	33.78	5.36	282	250	8.82	33.91	3.24	26.32	171	0.70
153	12.94	33.69	5.22	258	300	8.02	33.98	2.62	26.50	154	0.79
178	11.37	33.64	5.04	232	400	6.76	34.15	1.44	26.80	126	0.93
201	10.34	33.68	4.46	212	500	6.01	34.29	0.57	27.01	106	1.05
249	8.83	33.91	3.26	172							
326	7.63	34.02	2.36	147							
423	6.50	34.20	1.15	118							
552	5.90	34.32a)	0.47	102							

PAOLINA-T; April 13, 1958; 1517 GCT; 28°27'N, 123°21'W; sounding, 2350 fm; wind, 320°, force 2; weather, overcast; sea, very rough; wire angle, 00°. 100.130

0	17.79	34.09	5.39	330	0	17.79	34.09	5.39	24.65	330	0.00
10	17.80	34.09	5.39	330	10	17.80	34.09	5.39	24.65	330	0.03
30	17.78	34.09	5.31	330	20	17.79	34.09	5.33	24.65	330	0.07
55	17.76	34.08	5.36	329	30	17.78	34.09	5.31	24.65	330	0.10
65	17.70	34.05	5.30	331	50	17.76	34.08	5.34	24.66	329	0.16
74	17.58	34.05	5.38	328	75	17.58	34.05	5.38	24.66	329	0.25
84	17.64	34.07	5.37	329	100	17.69	34.12	5.40	24.69	326	0.33
99	17.69	34.12	5.40	326	150	14.62	33.90	5.13	25.23	275	0.48
113	17.76	34.18a)	5.38	323	200	10.96	33.68	4.50	25.78	223	0.61
133	16.11	34.11a)	5.22	291	250	9.17	33.89	3.70	26.24	179	0.71
153	14.28	33.86	5.10	271	300	8.07	34.00	2.94	26.49	155	0.80
177	12.09	33.71	4.74	240	400	6.84	34.12	1.67	26.77	128	0.95
201	10.94	33.68	4.49	222	500	6.30	34.25	0.75	26.94	112	1.08
249	9.22	33.89	3.76	179							
326	7.66	34.04a)	2.63	146							
424	6.72	34.14	1.34	126							
551	6.08	34.34	0.44	103							

PAOLINA-T; April 13, 1958; 0628 GCT; 27°52'N, 124°22'W; sounding, 2300 fm; wind, 180°, force 2; weather, overcast; sea, rough; wire angle, 05°. 100.145

0	17.86	33.99	5.38	339	0	17.86	33.99	5.38	24.56	339	0.00
10	17.74	33.95	5.39	339	10	17.74	33.95	5.39	24.56	339	0.03
30	17.72	34.00	5.41	335	20	17.93	33.98	5.40	24.57	338	0.07
55	17.74	33.99	5.34	336	30	17.72	34.00	5.41	24.60	335	0.10
64	17.73	33.99	5.38	336	50	17.74	33.99	5.37	24.59	336	0.17
74	17.70	33.98	5.38	336	75	17.69	33.99	5.39	24.59	336	0.25
84	17.58	34.00	5.41	332	100	17.65	34.05	5.33	24.66	330	0.34
99	17.64	34.05	5.33	330	150	13.35	33.81	5.10	25.42	257	0.48
113	16.99	34.03	5.42	316	200	10.60	33.69	4.54	25.85	216	0.60
132	14.59	33.83	5.24	280	250	9.06	33.89	3.67	26.26	177	0.71
151	13.26	33.80	5.10	256	300	8.06	34.05	2.64	26.54	151	0.79
175	11.70	33.68	4.68	236	400	7.23	34.20	1.28	26.78	128	0.94
199	10.62	33.69	4.55	216	500	6.58	34.27	0.65	26.92	114	1.06
247	9.18	33.88	3.73	179							
324	7.78	34.09	2.25	143							
420	7.13	34.23	1.09	124							
546	6.20	34.29	0.44	108							

a) Broken bottle cap; value falls on property curve.

S10

CCOFI 5804

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{3}^{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{3}^{-5} 10^{-5} cm/g	ΔD dyn. m

103.30 BLACK DOUGLAS; April 23, 1958; 1242 GCT; 31°05'N, 116°25'W; sounding, 38 fm; wind, 280°, force 3; weather, partly cloudy; sea, rough; wire angle, 02°.

0	17.46	33.53	5.68	364	0	17.46	33.53	5.68	24.29	364	0.00
10	17.42	33.58	5.83	359	10	17.42	33.58	5.83	24.34	359	0.04
29	14.30	33.48	5.85	300	20	14.90	33.50	5.84	24.88	308	0.07
48	11.73	33.45	4.95	253	30	14.28	33.48	5.85	24.97	299	0.10

103.35 BLACK DOUGLAS; April 23, 1958; 1601 GCT; 30°55.5'N, 116°45'W; sounding, 1000 fm; wind, 270°, force 3; weather, partly cloudy; sea, high; wire angle, 23°.

0	17.07	33.52	5.82	356	0	17.07	33.52	5.82	24.38	356	0.00
8	16.84	33.54	5.94	349	10	16.74	33.54	5.94	24.47	347	0.04
27	12.64	33.49	5.33	267	20	14.40	33.52	5.52	24.98	298	0.07
40	11.46	33.55	4.58	241	30	12.30	33.50	5.18	25.39	260	0.10
49	10.88	33.54	4.43	232	50	10.85	33.54	4.42	25.68	232	0.14
58	10.61	33.59	4.16	224	75	10.03	33.69	3.62	25.95	206	0.20
65	10.28	33.88r	4.00		100	9.29	33.81	3.43	26.16	186	0.25
81	9.93	33.71	3.57	203	150	8.76	34.05	2.46	26.42	160	0.34
92	9.42	33.91r	3.53		200	9.02	34.33	1.14	26.61	144	0.41
102	9.28	33.82	3.41	186	250	8.55	34.33	0.91	26.68	137	0.48
120	9.20	33.93	2.90	176	300	8.00	34.30	0.80	26.75	131	0.55
140	8.76	34.00	2.58	164	400	7.16	34.29	0.70	26.86	120	0.68
169	9.21	34.27	1.45	151	500	(6.20)	(34.31)	(0.53)	(27.01)	(106)	(0.80)
209	8.94	34.34	1.06	142							
274	8.23	34.31	0.85	133							
359	7.48	34.29	0.75	125							
484	6.36	34.31	0.55	108							

103.40 BLACK DOUGLAS; April 23, 1958; 1937 GCT; 30°45'N, 117°05.5'W; sounding, 800 fm; wind, 300°, force 4; weather, cloudy; sea, high; wire angle, 16°.

0	17.45	33.54	-	362	0	17.45	33.54		24.31	362	0.00
9	17.34	33.53	5.62	360	10	17.30	33.53	5.62	24.34	360	0.04
28	16.04	33.51	5.68	334	20	16.84	33.52	5.64	24.43	351	0.07
42	15.08	33.47	5.77	316	30	15.90	33.51	5.68	24.64	331	0.10
51	14.59	33.45	5.84	307	50	14.65	33.45	5.84	24.87	309	0.17
60	14.02	33.45	5.78	296	75	12.68	33.48	5.45	25.30	268	0.24
69	13.26	33.47	5.60	280	100	11.26	33.44	5.06	25.54	246	0.31
87	11.76	33.48	5.16	251	150	9.85	33.77	3.44	26.05	197	0.42
100	11.26	33.44	5.06	246	200	9.22	33.96	2.53	26.29	174	0.51
112	10.78	33.53	4.65	231	250	9.32	34.21	1.18	26.55	150	0.60
134	10.29	33.69	3.78	211	300	8.82	34.34	1.04	26.65	140	0.67
158	9.54	33.81	3.17	190	400	7.11	34.27	1.12	26.85	121	0.81
192	9.22	33.93	2.53	176	500	6.34	34.30	0.77	27.01	106	0.93
239	9.48	34.29	1.27	154							
311	8.72	34.34	1.04	138							
400	7.11	34.27a)	1.12	121							
528	6.20	34.31	0.62	106							

a) Possible evaporation; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m
BLACK DOUGLAS; April 24, 1958; 0250 GCT; 30°22'N, 117°45'W; sounding, 1200 fm; wind, 310°, force 5; weather, haze; sea, high; wire angle, 18°.											103.50
0	17.27	33.68u	5.52		0	17.27	(33.60)	5.52	(24.40)	(353)	(0.00)
9	17.26	33.60	5.59	353	10	17.25	33.60	5.60	24.40	353	0.04
27	16.95	33.62	5.60	346	20	17.08	33.62	5.60	24.46	348	0.07
40	16.61	33.58	5.64	341	30	16.87	33.61	5.60	24.50	344	0.10
47	16.12	33.58	5.74	330	50	16.08	33.61	5.74	24.68	327	0.17
56	16.06	33.64	5.73	325	75	15.36	33.58	5.74	24.82	314	0.25
63	15.66	33.61	5.75	318	100	13.40	33.58	5.01	25.23	275	0.33
79	15.22	33.57	5.74	312	150	10.46	33.65	4.16	25.84	217	0.45
92	14.37	33.56	5.59	295	200	9.22	33.98	2.91	26.30	173	0.55
104	13.06	33.59	4.86	267	250	8.82	34.12	2.00	26.48	156	0.63
124	11.50	33.61	4.47	237	300	8.53	34.22	1.60	26.60	145	0.71
149	10.49	33.65	4.17	217	400	6.86	34.23	1.17	26.85	121	0.85
182	9.70	33.97	2.98	181	500	5.91	34.24	0.75	26.98	108	0.97
229	8.90	34.04	2.46	163							
302	8.53	34.22	1.60	144							
394	6.94	34.23	1.18	121							
525	5.75	34.25	0.67	105							
BLACK DOUGLAS; April 24, 1958; 0952 GCT; 30°06'N, 118°25.5'W; sounding, 1700 fm; wind, 340°, force 5; weather, clear; sea, high; wire angle, 14°.											103.60
0	17.10	33.59	5.61	351	0	17.10	33.59	5.61	24.43	351	0.00
9	17.14	33.58	5.64	352	10	17.14	33.58	5.63	24.42	352	0.04
28	17.38	33.81a)	5.53	341	20	17.27	33.64	5.58	24.42	352	0.07
57	17.30	33.87	5.68	335	30	17.38	33.83	5.54	24.56	339	0.10
66	16.98	33.78	5.71	334	50	17.36	33.85	5.64	24.58	337	0.17
75	17.00	33.81	5.55	333	75	17.00	33.81	5.55	24.62	333	0.26
88	16.38	33.87	5.48	314	100	14.46	33.67	5.18	25.09	288	0.34
101	14.35	33.66	5.18	287	150	10.67	33.57	4.49	25.74	226	0.46
114	12.92	33.58	5.14	265	200	9.12	33.85	3.17	26.22	181	0.57
132	11.57	33.53	4.78	244	250	8.52	33.97	2.53	26.42	162	0.66
150	10.67	33.57	4.49	226	300	7.55	34.02	2.03	26.59	146	0.74
176	9.46	33.66	4.06	200	400	6.80	34.33	1.01	26.94	113	0.87
198	9.16	33.84	3.21	182	500	6.20	34.33	0.47	27.02	105	0.98
246	8.58	33.97	2.57	164							
321	7.25	34.07	1.77	138							
420	6.71	34.33	0.93	111							
547	5.89	34.33	0.36	101							
BLACK DOUGLAS; April 24, 1958; 1543 GCT; 29°48.5'N, 119°01'W; sounding, 1850 fm; wind, 340°, force 5; weather, cloudy; sea, high; wire angle, 18°.											103.70
0	16.30	33.46	5.75	342	0	16.30	33.46	5.75	24.52	342	0.00
9	16.28	33.46	5.78	342	10	16.27	33.46	5.78	24.53	341	0.03
27	16.26	33.48	5.79	340	20	16.26	33.47	5.78	24.53	341	0.07
55	16.37	33.63	5.64	332	30	16.26	33.51	5.79	24.57	338	0.10
64	16.18	33.56	5.63	332	50	16.35	33.59	5.69	24.61	334	0.17
73	15.67	33.45	5.66	330	75	15.65	33.45	5.67	24.66	329	0.25
86	15.52	33.49	5.71	323	100	15.70	33.66	5.64	24.81	315	0.34
99	15.70	33.66	5.64	315	150	10.50	33.54	4.77	25.75	225	0.47
112	13.70	33.58	5.61	280	200	9.01	33.84	3.33	26.23	180	0.57
130	11.69	33.44	5.29	253	250	8.24	34.04	2.52	26.50	154	0.66
148	10.58	33.53	4.80	228	300	7.49	34.09	2.14	26.65	140	0.73
175	9.42	33.60	4.05	204	400	6.47	34.18	0.92	26.87	119	0.87
197	9.06	33.75	3.56	188	500	5.98	34.25	0.58	26.99	108	0.99
245	8.34	34.03	2.52	155							
321	7.23	34.11	1.82	136							
420	6.34	34.19	0.81	117							
548	5.77	34.31	0.48	100							

a) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10 cm/g	ΔD dyn. m
103.80	BLACK DOUGLAS; April 24, 1958; 2250 GCT; 29°26.5'N, 119°45.5'W; sounding, 1900 fm; wind, 330°, force 5; weather, cloudy; sea, very rough; wire angle, 17°.										
0	16.93	33.64	5.72	343	0	16.93	33.64	5.72	24.51	343	0.00
9	16.92	33.62	3.96u	345	10	16.91	33.62	5.72	24.49	345	0.03
28	16.77	33.62	5.66	341	20	16.85	33.62	5.71	24.51	343	0.07
56	17.03	33.80	5.64	335	30	16.77	33.62	5.66	24.55	340	0.10
65	17.05	33.84	5.70	332	50	16.79	33.66	5.65	24.56	339	0.17
74	16.82	33.77	5.67	332	75	16.80	33.77	5.67	24.63	332	0.25
88	16.45	33.76	5.70	324	100	16.12	33.69	5.70	24.74	322	0.34
102	16.11	33.69	5.70	322	150	11.22	33.55	4.83	25.63	237	0.48
115	14.08	33.54	6.14	391	200	9.47	33.76	3.65	26.09	193	0.59
132	12.78	33.48	5.47	270	250	8.83	34.04	2.27	26.42	162	0.68
149	11.24	33.55	4.83	238	300	7.87	34.07	2.14	26.58	146	0.76
175	10.34	33.60	4.43	218	400	6.78	34.13	1.17	26.79	127	0.90
196	9.52	33.75	3.68	194	500	6.10	34.23	0.59	26.96	111	1.03
245	8.94	34.02	2.33	165							
318	7.55	34.08	2.08	141							
416	6.66	34.15	1.07	122							
541	5.82	34.27	0.47	104							
103.90	BLACK DOUGLAS; April 25, 1958; 0459 GCT; 29°06'N, 120°25'W; sounding, 2000 fm; wind, 340°, force 5; weather, partly cloudy; sea, very rough; wire angle, 16°.										
0	17.45	33.84	5.47	340	0	17.45	33.84	5.47	24.54	340	0.00
10	17.48	33.80	5.50	344	10	17.48	33.80	5.50	24.50	344	0.03
29	17.42	33.82	5.56	342	20	17.46	33.81	5.52	24.52	343	0.07
56	17.35	33.80	5.58	341	30	17.42	33.81	5.54	24.53	341	0.10
65	17.24	33.80	5.58	339	50	17.37	33.80	5.55	24.53	341	0.17
74	16.90	33.77	5.58	333	75	16.88	33.77	5.58	24.62	333	0.26
87	16.86	33.82	5.59	329	100	16.74	33.87	5.52	24.74	322	0.34
100	16.74	33.87	5.52	322	150	11.37	33.62	4.36	25.65	235	0.48
113	15.16	33.74	5.26	298	200	9.64	33.80	3.39	26.10	192	0.59
130	12.92	33.62	4.74	262	250	9.18	34.16	1.92	26.46	158	0.68
148	11.44	33.62	4.39	236	300	8.37	34.20	1.61	26.62	143	0.76
174	10.27	33.75	3.60	206	400	7.25	34.27	0.81	26.83	123	0.89
196	9.70	33.80	3.42	193	500	6.48	34.31	0.46	26.98	109	1.02
244	9.28	34.15	2.08	161							
319	8.16	34.22	1.55	138							
416	7.06	34.28	0.70	120							
541	6.21	34.33	0.38	105							
107.32	BLACK DOUGLAS; April 27, 1958; 0441 GCT; 30°26'N, 116°11'W; sounding, 350 fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 24°.										
0	16.14	33.57	5.81	331	0	16.14	33.57	5.81	24.64	331	0.00
9	16.12	33.53	5.86	333	10	16.10	33.53	5.86	24.62	333	0.03
27	15.00	33.55	6.00	308	20	16.06	33.55	5.88	24.80	316	0.07
44	12.69	33.50	5.84	267	30	14.68	33.56	5.97	24.96	301	0.10
66	11.32	33.60	4.19	235	50	12.23	33.52	5.28	25.42	257	0.15
87	10.39	33.80	3.29	204	75	10.40	33.62	4.00	25.83	218	0.21
107	10.14	33.90	2.93	193	100	10.23	33.87	3.03	26.06	196	0.26
140	9.74	34.03	2.41	177	150	9.62	34.06	2.29	26.30	173	0.36
173	9.36	34.13	2.00	164	200	9.69	34.26	1.05	26.45	159	0.44
205	9.68	34.20u	1.01		250	9.17	34.40	0.76	26.64	141	0.52
259	9.06	34.42	0.72	138							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

BLACK DOUGLAS; April 27, 1958; 0159 GCT; 30°20'N, 116°23'W; sounding, 900 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 20°. 107.35

0	17.43	33.61	5.66	357	0	17.43	33.61	5.66	24.37	357	0.00
9	17.44	33.60	5.60	358	10	17.44	33.60	5.60	24.37	357	0.04
28	16.62	33.59	5.72	340	20	17.43	33.60	5.61	24.37	357	0.07
41	15.30	33.55	5.91	315	30	16.00	33.53	6.04	24.63	332	0.11
50	14.23	33.55a)	5.76	293	50	14.23	33.55	5.76	25.04	293	0.17
59	13.24	33.54	5.44	274	75	11.80	33.53	4.47	25.51	248	0.24
67	12.40	33.51	4.96	261	100	10.22	33.60	4.05	25.83	218	0.30
83	11.24	33.57	4.33	236	150	9.27	33.96	2.66	26.28	175	0.39
95	10.46	33.58	4.22	222	200	8.35	34.08	2.09	26.52	152	0.47
107	10.04	33.69	3.68	207	250	7.83	34.16	1.74	26.66	139	0.55
126	9.67	33.93	2.79	183	300	7.48	34.18	1.34	26.72	133	0.62
150	9.27	33.96	2.66	175	400	6.87	34.32	0.50	26.92	114	0.75
183	8.61	34.05	2.24	158	500	6.32	34.34	0.40	27.01	106	0.86
221	8.04	34.13	1.91	144							
298	7.48	34.18	1.35	133							
387	6.94	34.32	0.52	115							
516	6.26	34.34	0.40	105							

BLACK DOUGLAS; April 26, 1958; 2214 GCT; 30°10.5'N, 116°43'W; sounding, 1400 fm; wind, 320°, force 5; weather, partly cloudy; sea, high; wire angle, 11°. 107.40

0	16.91	33.51	5.56	352	0	16.91	33.51	5.56	24.42	352	0.00
10	17.00	33.58	5.61	350	10	17.00	33.58	5.61	24.44	350	0.04
29	16.18	33.49	5.72	337	20	16.90	33.58	5.65	24.47	347	0.07
43	13.50	33.51	5.66	281	30	15.50	33.42	5.85	24.67	328	0.10
52	12.93	33.49	5.48	272	50	13.00	33.50	5.51	25.25	273	0.16
61	11.82	33.49	5.14	252	75	11.00	33.56	4.38	25.68	232	0.23
70	11.18	33.53	4.58	237	100	10.28	33.75	3.82	25.95	206	0.28
88	10.60	33.66	3.99	218	150	9.25	33.99	2.60	26.32	172	0.38
100	10.28	33.75	3.82	206	200	8.50	34.04	2.32	26.47	157	0.46
114	10.00	33.77	3.33	200	250	7.88	34.12	2.30	26.63	142	0.54
136	9.52	33.94	2.71	180	300	7.48	34.23	1.18	26.76	129	0.61
162	9.03	34.01	2.53	168	400	6.60	34.26	0.75	26.91	115	0.74
196	8.56	34.04	2.31	158	500	(6.00)	(34.35)		(27.07)	(100)	(0.85)
243	7.98	34.10	2.34	145							
298p	7.48	34.23	1.28	129							
374p	6.74	34.25	0.80	117							
484p	6.12	34.33	0.43	104							

BLACK DOUGLAS; April 26, 1958; 1446 GCT; 29°50.5'N, 117°23.5'W; sounding, 1500 fm; wind, 310°, force 5; weather, partly cloudy; sea, high; wire angle, 27°. 107.50

0	17.13	33.58	5.74	352	0	17.13	33.58	5.74	24.42	352	0.00
9	17.13	33.58	5.79	352	10	17.13	33.58	5.78	24.42	352	0.04
26	16.83	33.57	5.67	347	20	17.05	33.58	5.77	24.43	351	0.07
39	15.23	33.53	5.85	315	30	16.50	33.55	5.67	24.61	334	0.10
48	14.32	33.51	5.89	297	50	13.85	33.49	5.73	25.06	291	0.17
56	12.74	33.48	5.09	259	75	11.27	33.56	4.31	25.62	237	0.23
64	11.90	33.53	4.60	250	100	10.52	33.63	3.90	25.82	219	0.29
80	11.14	33.57	4.25	234	150	9.41	33.84	2.96	26.17	186	0.39
92	10.80	33.61	4.11	226	200	8.95	34.12	1.81	26.46	158	0.48
103	10.42	33.64	3.87	217	250	8.39	34.15	1.53	26.58	147	0.56
120	9.91	33.72	3.57	203	300	7.25	34.09	1.51	26.68	137	0.63
140	9.56	33.78	3.21	192	400	6.65	34.17	0.79	26.84	122	0.77
166	9.32	33.95	2.70	176							
202	8.89	34.13	1.81	156							
260	7.87	34.07	1.86	146							
333	6.99	34.11	1.23	131							
442	6.52	34.22	0.62	117							

a) Possible evaporation; value falls on property curve.

SIO

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

107.60 BLACK DOUGLAS; April 26, 1958; 0737 GCT; 29°31'N, 118°03'W; sounding, 1800 fm; wind, 310°, force 5; weather, partly cloudy; sea, very rough; wire angle, 26°.

0	16.90	33.59	5.60	347	0	16.90	33.59	5.60	24.47	347	0.00
9	16.88	33.57	5.61	348	10	16.87	33.57	5.60	24.47	347	0.03
26	16.86	33.58	5.57	346	20	16.86	33.57	5.59	24.47	347	0.07
53	16.16	33.58	5.70	331	30	16.84	33.58	5.57	24.48	346	0.10
62	15.99	33.58	5.71	327	50	16.35	33.58	5.69	24.60	335	0.17
70	15.86	33.57	5.72	325	75	15.72	33.56	5.72	24.72	323	0.25
82	15.38	33.53	5.72	318	100	14.39	33.53	5.71	24.99	298	0.33
95	14.72	33.53	5.76	304	150	10.96	33.52	4.72	25.66	234	0.47
107	13.80	33.55	5.60	284	200	9.38	33.92	3.06	26.24	179	0.57
122	12.99	33.46	5.43	275	250	8.64	34.08	2.33	26.47	157	0.66
135	12.15	33.48	5.20	258	300	8.33	34.22	1.59	26.64	141	0.74
156	10.40	33.56	4.47	222	400	7.41	34.29	0.96	26.83	123	0.88
174	9.90	33.77	3.55	199	500	(5.98)	(34.24)		(26.98)	(109)	(1.00)
213	9.21	33.96	2.71	174							
276	8.55	34.16	1.87	148							
362	7.87	34.30	1.06	129							
478	6.32	34.25	0.85	112							

107.70 BLACK DOUGLAS; April 26, 1958; 0053 GCT; 29°11'N, 118°43'W; sounding, 1650 fm; wind, 330°, force 5; weather, partly cloudy; sea, very rough; wire angle, 16°.

0	17.53	33.78	5.57	346	0	17.53	33.78	5.57	24.48	346	0.00
10	17.54	33.73	5.59	350	10	17.54	33.73	5.59	24.44	350	0.03
29	17.36	33.68	5.60	350	20	17.44	33.70	5.59	24.44	350	0.07
56	17.19	33.82	5.70	336	30	17.36	33.68	5.62	24.45	349	0.10
64	17.14	33.86	5.67	332	50	17.20	33.80	5.68	24.57	338	0.17
73	17.00	33.84	5.66	330	75	16.98	33.84	5.66	24.66	329	0.26
90	16.66	33.84	5.66	323	100	13.90	33.55	5.64	25.11	286	0.34
98	14.16	33.57	5.66	290	150	10.27	33.49	4.69	25.74	226	0.46
111	12.49	33.46	5.55	266	200	8.89	33.80	3.38	26.22	181	0.57
128	11.00	33.40	5.19	244	250	8.41	34.04	2.30	26.48	156	0.65
146	10.41	33.47	-	229	300	8.06	34.14	1.10	26.62	143	0.73
172	9.56	33.57	4.27	208	400	7.05	34.22	0.94	26.82	124	0.87
193	9.00	33.74	3.55	187	500	6.22	34.23	0.75	26.94	112	0.99
241	8.50	34.00	2.50	160							
316	7.95	34.16	0.92	140							
414	6.92	34.23	0.94	122							
541	5.90	34.23	0.63	108							

107.80 BLACK DOUGLAS; April 25, 1958; 1753 GCT; 28°54.5'N, 119°19'W; sounding, 2000 fm; wind, 340°, force 5; weather, partly cloudy; sea, very rough; wire angle, 12°.

0	17.77	33.93	5.64	341	0	17.77	33.93	5.64	24.54	341	0.00
10	17.79	33.89	5.62	344	10	17.79	33.89	5.62	24.50	344	0.03
28	17.74	33.86	5.56	346	20	17.77	33.88	5.61	24.49	345	0.07
57	17.66	33.93	5.58	339	30	17.74	33.86	5.56	24.49	345	0.10
66	17.52	33.95	5.52	334	50	17.69	33.90	5.56	24.52	342	0.17
75	17.52	33.96	5.53	334	75	17.52	33.96	5.53	24.61	334	0.26
88	17.26	34.03	5.44	322	100	16.76	33.97	5.28	24.80	316	0.34
102	16.74	33.96	5.28	315	150	12.02	33.69	3.72	25.59	240	0.48
115	15.26	33.84	4.94	293	200	10.08	33.89	2.93	26.09	193	0.59
133	12.86	33.57	4.89	265	250	8.73	34.07	2.43	26.46	158	0.68
151	11.99	33.69	3.70	240	300	8.18	34.15	1.82	26.60	145	0.76
177	11.07	33.96	2.92	204	400	7.52	34.30	0.76	26.81	125	0.90
199	10.10	33.89	2.93	193	500	6.71	34.33	0.40	26.96	111	1.02
248	8.79	34.07	2.44	160							
324	8.04	34.18	1.56	140							
422	7.38	34.31	0.57	122							
551	6.28	34.34	0.37	105							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
BLACK DOUGLAS; April 25, 1958; 1041 GCT; 28°32.5'N, 120°01.5'W; sounding, 2000 fm; wind, 340°, force 5; weather, cloudy; sea, very rough; wire angle, 20°.											107.90
0	17.40	33.77	5.46	344	0	17.40	33.77	5.46	24.50	344	0.00
9	17.50	33.76	5.48	347	10	17.50	33.76	5.48	24.47	347	0.03
28	17.44	33.84	5.51	341	20	17.49	33.81	5.49	24.51	344	0.07
55	17.36	33.80	5.50	342	30	17.44	33.84	5.51	25.54	341	0.10
64	16.86	33.70	5.52	338	50	17.38	33.81	5.50	24.54	341	0.17
72	16.91	33.80	5.49	331	75	16.88	33.80	5.46	24.64	331	0.26
85	16.25	33.84	5.38	314	100	15.20	33.71	5.38	24.96	301	0.34
98	15.45	33.75	5.31	303	150	11.53	33.60	4.23	25.61	238	0.47
111	14.40	33.69	4.98	286	200	9.58	33.93	2.88	26.20	182	0.58
127	13.07	33.65	4.51	264	250	8.72	34.04	2.68	26.44	160	0.67
143	11.95	33.59	4.41	247	300	8.20	34.16	1.66	26.61	144	0.75
165	10.63	33.71	3.50	216	400	7.43	34.29	0.69	26.82	124	0.89
184	9.96	33.87	2.94	192	500	(6.76)	(34.32)	(0.43)	(26.94)	(112)	(1.01)
225	9.04	33.98	2.84	170							
292	8.28	34.13	1.82	148							
380	7.58	34.28	0.78	126							
495	6.80	34.32	0.43	113							
STRANGER; April 27, 1958; 1941 GCT; 29°50.5'N, 115°52'W; sounding, 46 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 09°.											110.33
0	16.44	33.53	5.55	341	0	16.44	33.53	5.55	24.54	341	0.00
10	16.36	33.54	5.66	338	10	16.36	33.54	5.66	24.57	338	0.03
30	14.12	33.48	5.90	296	20	15.34	33.52	5.81	24.78	318	0.07
50	11.88	33.42	4.93	258	30	14.12	33.48	5.90	25.01	296	0.10
75	10.68	33.77	3.03	212	50	11.88	33.42	4.93	25.41	258	0.15
					75	10.68	33.77	3.03	25.90	211	0.21
STRANGER; April 27, 1958; 1800 GCT; 29°45'N, 115°58'W; sounding, 320 fm; wind, 320°, force 3; weather, partly cloudy; sea, rough; wire angle, 22°.											110.35
0	16.64	33.58	5.46	342	0	16.64	33.58	5.46	24.53	342	0.00
9	16.59	33.54	5.58	343	10	16.57	33.54	5.59	24.52	343	0.03
28	15.78	33.60	5.72	321	20	16.18	33.57	5.68	24.63	332	0.07
37	14.18	33.55	5.68	292	30	15.52	33.60	5.72	24.80	316	0.10
46	12.36	33.44	5.40	265	50	11.74	33.47	4.95	25.47	252	0.16
55	11.33	33.49	4.71	243	75	10.80	33.71	3.52	25.82	218	0.22
64	11.10	33.49	4.67	239	100	10.10	33.88	2.60	26.08	194	0.27
75	10.80	33.71	3.52	218	150	9.75	34.18	1.69	26.37	166	0.36
87	10.34	33.78	3.51	205	200	9.34	34.30	1.02	26.54	151	0.44
99	10.12	33.88	2.70	194	250	9.36	34.38	0.79	26.60	145	0.52
119	9.94	34.03	2.29	180	300	8.86	34.36	0.65	26.66	139	0.59
143	9.96	34.18	1.68	169	400	7.53	34.32	0.48	26.83	123	0.72
171	9.01	34.14	1.74	158							
213	9.46	34.38	0.80	147							
255	9.30	34.38	0.78	144							
348	8.22	34.34	0.56	131							
441	6.90	34.30	0.44	116							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T_3}^{-5}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T_3}^{-5}$ 10^{-5} cm/g	ΔD dyn. m

110.40 STRANGER; April 27, 1958; 1456 GCT; 29°35'N, 116°19'W; sounding, 1400 fm; wind, 320°, force 5; weather, partly cloudy; sea, very rough; wire angle, 10°.

0	17.30	33.69	5.45	348	0	17.30	33.69	5.45	24.46	348	0.00
10	17.31	33.66	5.50	351	10	17.31	33.66	5.50	24.43	351	0.03
29	17.28	33.70	5.52	348	20	17.30	33.69	5.51	24.46	348	0.07
44	17.06	33.68	5.53	347	30	17.28	33.70	5.52	24.48	347	0.10
53	15.81	33.62	5.72	320	50	16.23	33.64	5.66	24.67	328	0.17
63	14.55	33.58	5.70	297	75	13.50	33.55	5.37	25.18	279	0.25
72	13.82	33.55	5.54	285	100	11.52	33.57	4.41	25.58	241	0.31
90	11.92	33.54	4.58	250	150	9.87	33.96	2.95	26.18	184	0.42
104	11.38	33.58	4.34	237	200	9.37	34.24	1.53	26.49	155	0.51
118	10.38	33.68	3.73	213	250	9.08	34.34	0.90	26.61	144	0.58
141	9.87	33.84	3.08	193	300	8.44	34.33	0.79	26.70	135	0.66
169	9.98	34.17	1.77	170	400	7.30	34.31	0.54	26.85	121	0.79
207	9.26	34.26	1.46	154	500	6.55	34.32	0.43	26.97	110	0.91
258	8.93	34.34	0.90	141	600	(5.86)	(34.41)		(27.13)	(94)	(1.02)
338	8.04	34.32	0.69	130							
438	6.98	34.30	0.48	117							
583	5.98	34.40	0.35	97							

110.50 STRANGER; April 27, 1958; 0911 GCT; 29°16'N, 116°59'W; sounding, 2000 fm; wind, 340°, force 5; weather, partly cloudy; sea, very rough; wire angle, 17°.

0	17.19	33.68	5.32	346	0	17.19	33.68	5.32	24.48	346	0.00
10	17.20	33.65	5.33	349	10	17.20	33.65	5.33	24.45	349	0.03
28	17.19	33.69	5.40	345	20	17.20	33.67	5.37	24.47	347	0.07
43	16.32	33.55	5.36	337	30	17.18	33.69	5.40	24.49	345	0.10
52	15.44	33.51	5.67	321	50	15.57	33.52	5.62	24.72	324	0.17
62	14.41	33.48	5.80	302	75	12.25	33.42	4.65	25.33	265	0.24
71	12.68	33.40	4.78	274	100	10.58	33.53	4.20	25.73	227	0.31
89	11.22	33.50	4.40	241	150	9.55	33.88	2.87	26.18	185	0.41
102	10.50	33.54	4.17	225	200	8.77	34.05	2.10	26.44	160	0.50
115	10.14	33.64	3.62	212	250	8.48	34.25	1.38	26.64	141	0.58
137	9.74	33.84	3.12	191	300	7.69	34.25	1.12	26.75	130	0.65
163	9.40	33.91	2.65	180	400	6.65	34.30	0.50	26.94	112	0.77
199	8.77	34.05	2.10	160	500	6.10	34.36	0.32	27.06	102	0.88
249	8.50	34.25	1.39	142							
326	7.26	34.25	0.98	125							
425	6.48	34.32	0.40	109							
565	5.76	34.39	0.29	95							

110.60 STRANGER; April 27, 1958; 0319 GCT; 28°58'N, 117°37'W; sounding, 2000 fm; wind, 360°, force 5; weather, partly cloudy; sea, very rough; wire angle, 22°.

0	16.87	33.58	5.36	347	0	16.87	33.58	5.36	24.47	347	0.00
9	16.90	33.60	5.56	346	10	16.89	33.60	5.56	24.49	346	0.03
28	16.75	33.58	5.54	344	20	16.81	33.59	5.55	24.50	344	0.07
54	16.63	33.68	5.57	334	30	16.74	33.58	5.55	24.51	343	0.10
63	16.47	33.68	5.62	331	50	16.66	33.66	5.56	24.59	336	0.17
71	16.16	33.66	5.55	325	75	15.68	33.58	5.58	24.75	320	0.25
84	14.84	33.46	5.67	312	100	13.72	33.52	5.20	25.12	285	0.33
95	14.16	33.53	5.24	293	150	10.30	33.66	3.75	25.88	213	0.46
108	13.00	33.50	5.15	272	200	9.62	33.92	2.53	26.19	183	0.56
124	11.60	33.53	4.71	245	250	9.12	34.14	1.54	26.45	159	0.64
140	10.68	33.57	4.17	226	300	8.71	34.26	1.17	26.60	144	0.72
166	9.98	33.78	3.30	199	400	7.44	34.24	0.80	26.78	128	0.86
185	9.77	33.86	2.87	190	500	6.54	34.26	0.48	26.92	114	0.99
231	9.30	34.07	1.87	167							
304	8.69	34.27	1.16	143							
401	7.42	34.24	0.79	128							
530	6.26	34.27	0.42	110							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
STRANGER; April 26, 1958; 1544 GCT; 28°42'N, 118°25'W; sounding, 2000 fm; wind, 340°, force 5; weather, partly cloudy; sea, very rough; wire angle, 09°.											110.70
0	17.16	33.67	5.41	346	0	17.16	33.67	5.41	24.48	346	0.00
10	17.16	33.66	5.38	347	10	17.16	33.66	5.38	24.47	347	0.03
30	17.12	33.67	5.35	345	20	17.14	33.66	5.36	24.48	346	0.07
45	16.36	33.59	5.54	335	30	17.12	33.67	5.35	24.49	345	0.10
68p	16.14	33.58	5.51	330	50	16.32	33.59	5.54	24.61	334	0.17
77p	15.84	33.57	5.60	325	75	15.92	33.57	5.58	24.69	326	0.25
87p	15.33	33.57	5.56	314	100	14.15	33.52	5.50	25.04	293	0.33
103p	13.81a)	33.51	5.49	288	150	10.22	33.58	4.20	25.83	218	0.46
123p	11.87	33.48	4.91	254	200	9.59	33.89	2.86	26.18	185	0.56
151p	10.19	33.59	4.17	217	250	8.94	34.13	2.00	26.47	157	0.65
190p	9.78	33.85	3.09	191	300	8.12	34.20	1.54	26.65	140	0.73
255p	8.86	34.14	1.96	155	400	7.11	34.25	0.98	26.84	122	0.86
337p	7.56	34.23	1.28	130							
464p	6.63	34.28	0.65	114							
STRANGER; April 26, 1958; 0942, 1020 GCT; 28°17'N, 118°59.5'W; sounding, 2150 fm; wind, 340°, force 5; weather, partly cloudy; sea, very rough; wire angle, 19°, 20°.											110.80
0	17.86	33.92	5.35	344	0	17.86	33.92	5.35	24.50	344	0.00
10	17.88	34.04b)	5.37		10	17.88	33.92	5.37	24.50	344	0.03
28	17.84	33.92	5.43	344	20	17.86	33.92	5.39	24.50	344	0.07
56	17.84	33.90	5.49	346	30	17.84	33.91	5.43	24.49	345	0.10
65	17.49	33.92	5.54	336	50	17.84	33.90	5.47	24.48	346	0.17
74	17.28	33.89	5.52	333	75	17.27	33.89	5.52	24.62	333	0.26
87	16.97	33.98	5.59	319	100	15.08	33.78	5.14	25.03	294	0.34
100	15.08	33.78	5.14	294	150	10.60	33.62	4.32	25.80	221	0.47
114	13.08	33.61	4.97	266	200	9.10	33.87	3.17	26.24	179	0.57
133	11.72	33.58	4.74	243	250	8.20	34.05	2.30	26.52	152	0.65
151	10.51	33.63	4.27	219	300	7.68	34.16	1.66	26.68	137	0.73
178	9.68	33.75	3.60	197							
201	9.09	33.87	3.16	179							
251	8.19	34.05	2.29	152							
326	7.48	34.20	1.43	131							
549	6.30	34.37	0.40	103							
STRANGER; April 26, 1958; 0400 GCT; 27°53'N, 119°33'W; sounding, 2300 fm; wind, 320°, force 4; weather, partly cloudy; sea, very rough; wire angle, 03°.											110.90
0	18.20	33.98	5.31	348	0	18.20	33.98	5.31	24.46	348	0.00
10	18.20	34.02	5.34	345	10	18.20	34.02	5.34	24.49	345	0.03
30	18.18	33.97	5.32	348	20	18.20	33.97	5.33	24.46	348	0.07
60	17.71	33.96	5.34	338	30	18.18	33.97	5.32	24.46	348	0.10
69	17.68	33.96	5.35	337	50	17.87	33.96	5.32	24.52	342	0.17
79	17.59	33.96	5.30	335	75	17.62	33.96	5.32	24.59	336	0.26
93	15.64	33.77	5.38	306	100	14.05	33.64	5.17	25.14	283	0.34
108	13.13	33.58	4.96	269	150	9.84	33.86	3.21	26.11	191	0.46
121	12.10	33.59	4.59	249	200	9.06	34.01	2.57	26.35	169	0.55
139p	10.30	33.77	3.47	205	250	8.52	34.14	1.86	26.55	150	0.63
164p	9.52	33.92c)	2.97	182	300	8.18	34.26	1.30	26.69	136	0.70
185p	9.30	33.96	2.78	175							
231p	8.65	34.10	2.18	155							
302p	8.16	34.26	1.28	136							
396p	7.48	34.38	0.61	118							
518p	6.76	34.39	0.34	107							

a) Alternate value, 14.21°C, not used in interpolation.
b) Loose bottle cap; value does not fall on property curve.
c) Loose bottle cap; value falls on property curve.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T}^{-5}{}_{3}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T}^{-5}{}_{3}$ 10^{-5} cm/g	ΔD dyn. m

113.30 STRANGER; April 24, 1958; 1042 GCT; 29°20'N, 115°21'W; sounding, 50 fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 00°.

0	16.20	33.71	5.61	322	0	16.20	33.71	5.61	24.73	322	0.00
10	16.20	33.80	5.64	316	10	16.20	33.80	5.64	24.80	316	0.03
20	15.36	33.71	5.55	304	20	15.36	33.71	5.55	24.92	304	0.06
30	15.04	33.66	5.43	302	30	15.04	33.66	5.43	24.95	302	0.09
40	13.54	33.66	4.03	271	50	12.20	33.73	2.99	25.58	241	0.15
50	12.20	33.73	2.99	241	75	11.48	33.78	2.57	25.76	224	0.20
75	11.48	33.78	2.57	224							

113.35 STRANGER; April 24, 1958; 1313 GCT; 29°12'N, 115°36'W; sounding, 570 fm; wind, 320°, force 2; weather, partly cloudy; sea, moderate; wire angle, 09°.

0	16.03	33.59	5.81	327	0	16.03	33.59	5.81	24.68	327	0.00
10	16.04	33.66	5.82	322	10	16.04	33.66	5.82	24.73	322	0.03
30	14.66	33.58	5.16	300	20	15.66	33.63	5.50	24.80	316	0.06
40	12.90	33.55	4.96	267	30	14.66	33.58	5.16	24.97	300	0.10
49	12.13	33.58	4.30	250	50	12.12	33.58	4.29	25.49	250	0.15
58	11.82	33.59	3.90	244	75	10.88	33.69	3.22	25.80	221	0.21
68	11.26	33.69	3.27	227	100	9.97	33.78	3.08	26.03	199	0.26
82	10.60	33.69	3.21	216	150	9.68	34.08	2.00	26.30	173	0.36
95	10.13	33.78	3.10	202	200	9.88	34.37	1.05	26.50	154	0.44
108	9.78	33.78	3.06	196	250	9.40	34.41	0.74	26.62	143	0.52
131	9.77	33.96	2.58	182	300	8.82	34.39	0.64	26.68	127	0.59
158	9.68	34.13	1.89	169	400	7.58	34.39	0.46	26.87	119	0.72
189	9.91	34.34	1.12	157	500	6.60	34.40	0.31	27.02	105	0.84
235	9.58	34.42	0.77	146							
310	8.68	34.38	0.62	125							
403	7.56	34.39	0.45	118							
529	6.26	34.40	0.27	100							

113.40 STRANGER; April 24, 1958; 1629 GCT; 29°00.5'N, 115°56.5'W; sounding, 1000 fm; wind, 280°, force 2; weather, partly cloudy; sea, very rough; wire angle, 10°.

0	17.26	33.61	5.40	353	0	17.26	33.61	5.40	24.41	353	0.00
10	17.25	33.66	5.58	349	10	17.25	33.66	5.58	24.45	349	0.04
30	16.29	33.62	5.73	331	20	16.96	33.65	5.63	24.51	344	0.07
44	16.00	33.61	5.59	325	30	16.29	33.62	5.73	24.64	331	0.10
53	15.68	33.58	5.70	321	50	15.81	33.59	5.66	24.73	323	0.17
64	15.00	33.57	5.70	307	75	12.85	33.52	5.13	25.30	269	0.24
72	13.18	33.51	5.28	275	100	11.56	33.54	4.54	25.56	244	0.31
90	12.00	33.55	4.70	251	150	9.97	33.83	3.06	26.07	195	0.42
104	11.38	33.53	4.48	241	200	9.02	34.07	2.20	26.41	163	0.51
118	10.31	33.62	3.99	216	250	8.26	34.14	1.77	26.58	147	0.59
142	10.14	33.73	3.35	206	300	7.85	34.17	1.55	26.67	138	0.66
170	9.56	33.96a)	2.56	179	400	7.20	34.31	0.80	26.87	119	0.80
207	8.90	34.09	2.12	160	500	6.58	34.37	0.30	27.00	107	0.91
259	8.18	34.14	1.72	145	600	(5.58)	(34.37)		(27.13)	(94)	(1.02)
340	7.50	34.23	1.40b)	129							
441	7.00	34.36	0.38	113							
582	5.78	34.37	0.26	97							

a) Loose bottle cap; value falls on property curve.
b) Mean value of 1.10 and 1.71 ml/L.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10 cm/g	ΔD dyn. m

STRANGER; April 24, 1958; 2223 GCT; 28°42'N, 116°36'W; sounding, 2000 fm; wind, 320°, force 4; weather, cloudy; sea, very rough; wire angle, 00°. 113.50

0	17.52	33.66	5.45	355	0	17.52	33.66	5.45	24.39	355	0.00
10	17.47	33.68	5.56a)	353	10	17.47	33.68	5.56	24.41	353	0.04
30	17.12	33.66	5.54	346	20	17.34	33.67	5.56	24.44	350	0.07
58	15.71	33.60	5.78	320	30	17.12	33.66	5.54	24.48	346	0.10
67	13.48	33.49	5.53	283	50	16.50	33.63	5.64	24.60	335	0.17
76	12.74	33.48	5.00	269	75	12.80	33.48	5.03	25.27	271	0.25
90	11.73	33.49	4.58	250	100	11.27	33.53	4.50	25.60	239	0.31
104	11.09	33.54	4.46	236	150	9.80	33.80	3.16	26.07	195	0.42
118	10.28	33.63	3.85	215	200	8.75	34.04	2.43	26.43	161	0.51
136	9.88	33.76	3.40	200	250	7.98	34.12	2.00	26.61	144	0.59
156	9.70	33.84	3.00	190	300	7.39	34.19	1.34	26.75	130	0.66
184	8.84	33.96	2.68	168	400	6.77	34.27	0.67	26.90	116	0.79
208	8.67	34.06	2.30	158	500	6.19	34.32	0.36	27.02	105	0.90
260	7.80	34.13	1.79	141	600	(5.59)	(34.34)		(27.11)	(96)	(1.01)
341	7.04	34.24	0.96	123							
449	6.47	34.30	0.45	110							
587	5.66	34.34	0.30	97							

STRANGER; April 25, 1958; 0553 GCT; 28°22'N, 117°16.5'W; sounding, 2000 fm; wind, 320°, force 4; weather, partly cloudy; sea, very rough; wire angle, 23°. 113.60

0	17.18	33.63	5.23	350	0	17.18	33.63	5.23	24.44	350	0.00
9	17.18	33.63	5.50	350	10	17.18	33.63	5.50	24.44	350	0.04
32	17.08	33.61	5.31	350	20	17.15	33.62	5.40	24.44	350	0.07
60	16.02	33.60	5.45	327	30	17.09	33.62	5.32	24.44	350	0.10
68	15.88	33.58	5.56	325	50	16.18	33.60	5.41	24.65	330	0.17
81	15.18	33.62	4.99	307	75	15.64	33.59	5.42	24.77	319	0.25
90	14.00	33.50	5.56	292	100	12.60	33.48	5.16	25.31	267	0.33
106	11.80	33.48	4.86	252	150	9.96	33.68	3.77	25.95	206	0.45
118	11.06	33.48	4.65	239	200	8.92	34.02	2.50	26.38	165	0.54
134	10.49	33.62	4.19	220	250	8.77	34.23	1.68	26.57	147	0.62
153	9.90	33.69	3.70	205	300	8.38	34.32	1.04	26.70	135	0.70
177	9.82	33.98	2.60	182	400	6.90	34.25	0.80	26.86	120	0.83
202	8.91	34.02	2.50	165	500	6.05	34.27	0.65	26.99	107	0.95
251	8.76	34.23	1.67	147							
327	8.10	34.33	0.90	130							
429	6.54	34.23	0.80	117							
568	5.69	34.34	0.34	98							

STRANGER; April 25, 1958; 1151 GCT; 27°57'N, 117°56.5'W; sounding, 2000 fm; wind, 320°, force 4; weather, cloudy; sea, very rough; wire angle, 09°. 113.70

0	18.04	33.84	5.31	355	0	18.04	33.84	5.31	24.39	355	0.00
10	18.06	33.85	5.31	355	10	18.06	33.85	5.31	24.39	355	0.04
30	18.04	33.86	5.36	353	20	18.05	33.86	5.34	24.40	354	0.07
58	17.44	33.93	5.32	334	30	18.04	33.86	5.36	24.41	353	0.11
67	17.37	33.96	5.41	330	50	17.65	33.90	5.33	24.54	341	0.18
76	17.18	33.93	5.33	328	75	17.21	33.93	5.34	24.67	328	0.26
90	16.07	33.87	5.25	308	100	15.20	33.79	5.09	25.02	295	0.34
104	14.78	33.75	5.04	290	150	10.75	33.63	3.97	25.78	223	0.47
118	13.06	33.63	4.68	264	200	10.46	34.17	1.85	26.24	178	0.57
137	11.55	33.59	4.38	240	250	10.03	34.28	1.29	26.41	163	0.66
155	10.52	33.66	3.85	217	300	9.15	34.29	1.18	26.56	149	0.74
182	10.38	34.03	2.45	187	400	7.87	34.34	0.67	26.80	126	0.88
205	10.32	34.18	1.81	177	500	7.01	34.38	0.32	26.95	112	1.01
257	9.96	34.29	1.26	161	600	(6.10)	(34.36)		(27.06)	(101)	(1.12)
338	8.44	34.29	1.11	138							
444	7.48	34.38	0.40	118							
583	6.24	34.36	0.32	103							

a) Mean value of 5.38 and 5.75 ml/L.

S10

CCOFI 5804

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

113.80 STRANGER; April 25, 1958; 1655 GCT; 27°40'N, 118°32'W; sounding, 2150 fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 14°.

0	18.20	33.93	5.34	351	0	18.20	33.93	5.34	24.43	351	0.00
9	18.20	33.95	5.47	350	10	18.20	33.95	5.47	24.44	350	0.04
28	18.18	33.93	5.44	351	20	18.19	33.94	5.46	24.44	350	0.07
55	17.62	33.93	5.48	338	30	18.17	33.93	5.44	24.44	350	0.10
64	17.50	33.94	5.56	334	50	17.74	33.93	5.45	24.54	341	0.17
73	17.26	33.91	5.56	332	75	17.22	33.90	5.55	24.64	331	0.26
86	16.99	33.86	5.50	329	100	16.82	33.96	5.46	24.78	318	0.34
99	16.83	33.96	5.46	318	150	11.57	33.72	3.94	25.70	230	0.48
113	14.64	33.73	5.05	288	200	9.60	33.91	2.75	26.20	183	0.58
130	12.87	33.60	4.70	263	250	8.72	34.09	2.05	26.47	157	0.67
148	11.66	33.73	3.96	232	300	8.58	34.18	1.50	26.56	148	0.75
176	10.29	33.77	3.38	205	400	7.64	34.34	0.52	26.83	123	0.89
198	9.62	33.90	2.77	185	500	6.77	34.35	0.36	26.96	111	1.01
249	8.72	34.09	2.05	157							
329	8.40	34.27	0.80	139							
433	7.36	34.42u	0.48								
568	6.09	34.33	0.26	103							

113.90 STRANGER; April 25, 1958; 2213 GCT; 27°23'N, 119°12'W; sounding, 2300 fm; wind, 320°, force 4; weather, partly cloudy; sea, very rough; wire angle, 08°.

0	18.60	33.98	5.32	357	0	18.60	33.98	5.32	24.36	357	0.00
10	18.58	34.07	5.33	351	10	18.58	34.07	5.33	24.43	351	0.04
30	18.49	33.97	5.32	355	20	18.55	34.03	5.33	24.42	352	0.07
59	18.45	34.02	5.40	351	30	18.49	33.97	5.32	24.39	355	0.10
68	18.06	34.05	5.41	340	50	18.47	34.00	5.36	24.41	353	0.18
77	17.33	33.94	5.49	330	75	17.54	33.97	5.47	24.62	333	0.26
91	16.02	33.82	5.48	311	100	15.23	33.73	5.34	24.96	301	0.34
104	14.90	33.69	5.28	296	150	11.04	33.54	4.91	25.66	234	0.48
118	13.13	33.60	4.91	268	200	9.42	33.82	3.51	26.15	188	0.58
136	11.84	33.57	4.92	246	250	8.58	34.01	2.66	26.43	161	0.67
155	10.75	33.53	4.84	231	300	8.40	34.20	1.70	26.61	144	0.75
183	9.62	33.68	3.74	201	400	7.68	34.33	0.64	26.81	125	0.89
206	9.35	33.85	3.41	184	500	6.79	34.34	0.36	26.95	112	1.02
257	8.48	34.02	2.59	159							
337	8.28	34.30	1.03	135							
442	7.23	34.33	0.45	118							
579	6.09	34.34	0.31	103							

117.26 STRANGER; April 24, 1958; 0508 GCT; 28°56'N, 114°41'W; sounding, 40 fm; wind, 300°, force 4; weather, clear; sea, very rough; wire angle, 09°.

0	17.68	33.81	5.76	348	0	17.68	33.81	5.76	24.46	348	0.00
10	17.70	33.89	5.81	343	10	17.70	33.89	5.81	24.51	343	0.03
20	17.42	33.78	5.84	344	20	17.42	33.78	5.84	24.50	344	0.07
40	14.06	33.57	5.38	288	30	15.00	33.61	5.53	24.92	305	0.10
60	12.39	33.84	2.18	237	50	12.20	33.68	4.00	25.54	245	0.16

117.30 STRANGER; April 24, 1958; 0210 GCT; 28°48'N, 114°56'W; sounding, 50 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 12°.

0	16.94	33.68	5.87	340	0	16.94	33.68	5.87	24.55	340	0.00
10	16.88	33.82	5.97	330	10	16.88	33.82	5.97	24.65	330	0.03
20	16.26	33.69	5.96	325	20	16.26	33.69	5.96	24.70	325	0.07
39	12.40	33.52	4.53	260	30	14.30	33.57	5.28	25.06	292	0.10
59	11.08	33.68	3.56	225	50	11.34	33.60	3.84	25.64	236	0.15
84	11.10	34.07a)	1.89	197	75	11.09	33.94	2.40	25.95	206	0.20

a) Possible evaporation; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
STRANGER; April 23, 1958; 2326 GCT; 28°38'N, 115°16'W; sounding, 94 fm; wind, 310°, force 4; weather, cloudy; sea, high; wire angle, 10°.											117.35
0	17.18	33.58	5.66	353	0	17.18	33.58	5.66	24.40	353	0.00
10	16.88	33.62	5.88	344	10	16.88	33.62	5.88	24.50	344	0.03
30	16.30	33.61	5.66	332	20	16.30	33.61	5.66	24.63	332	0.07
49	15.38	33.58	5.71	314	30	16.30	33.61	5.66	24.63	332	0.10
72	12.58	33.46	5.16	268	50	15.26	33.57	5.71	24.84	312	0.17
96	11.16	33.57	4.17	234	75	12.32	33.46	5.02	25.35	263	0.24
119	10.09	33.84	3.19	197	100	10.88	33.62	3.94	25.74	226	0.30
147	10.24	34.06	2.02	183	150	(10.28)	(34.10)	(1.87)	(26.22)	(181)	(0.40)
STRANGER; April 23, 1958; 2013 GCT; 28°28'N, 115°35.5'W; sounding, 520 fm; wind, 310°, force 3; weather, cloudy; sea, high; wire angle, 06°.											117.40
0	17.57	33.65	5.58	357	0	17.57	33.65	5.58	24.36	357	0.00
10	17.48	33.73	5.50	350	10	17.48	33.73	5.50	24.44	350	0.04
29	17.16	33.65	5.50a)	348	20	17.33	33.70	5.50	24.45	349	0.07
58	16.44	33.61	5.71	335	30	17.14	33.65	5.50	24.46	348	0.10
68	16.04	33.58	5.81b)	328	50	16.66	33.62	5.64	24.56	339	0.17
77	14.99	33.62	5.69	303	75	15.30	33.60	5.74	24.84	312	0.26
91	12.86	33.54	5.20c)	267	100	11.98	33.54	4.73	25.48	251	0.33
105	11.64	33.56	4.52	244	150	10.05	33.95	2.64	26.14	188	0.44
118	11.07	33.66	3.90	226	200	9.52	34.21	1.49	26.43	161	0.53
137	10.64	33.86	3.02	204	250	9.39	34.32	1.02	26.54	150	0.61
155	9.83	33.98	2.53	182	300	8.93	34.42	0.80	26.69	136	0.68
183	9.72	34.15	1.73	168	400	7.66	34.40	0.47	26.87	119	0.81
207	9.47	34.22	1.48	159	500	6.48	34.36	0.33	27.01	106	0.93
259	9.34	34.37	0.95	145	600	(5.48)	(34.40)		(27.16)	(91)	(1.04)
339	8.46	34.43	0.66	127							
444	7.04	34.36	0.38	114							
583	5.66	34.39	0.30	94							
STRANGER; April 23, 1958; 1527 GCT; 28°02.5'N, 116°22'W; sounding, 2200 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 20°.											117.50
0	17.32	33.62	5.49	353	0	17.32	33.62	5.49	24.40	353	0.00
10	17.34	33.69	5.53	349	10	17.34	33.69	5.53	24.45	349	0.04
28	17.24	33.64	5.60	351	20	17.32	33.68	5.54	24.44	350	0.07
56	16.38	33.61	5.70	334	30	17.19	33.64	5.62	24.44	350	0.10
63	16.28	33.59	5.66	333	50	16.55	33.63	5.69	24.59	336	0.17
73	15.92	33.55	5.69	328	75	15.82	33.55	5.69	24.70	326	0.26
87	15.21	33.58	5.64	311	100	13.23	33.51	5.21	25.21	277	0.33
99	13.28	33.51	5.24	278	150	10.34	33.68	3.65	25.89	212	0.46
111	12.40	33.49	5.08	262	200	9.45	33.99	2.60	26.27	176	0.55
129	11.16	33.62	4.73	230	250	9.01	34.16	1.80	26.48	156	0.64
145	10.46	33.65	3.90	217	300	8.57	34.31	1.38	26.67	138	0.72
172	9.86	33.82	3.18	195	400	7.12	34.33	0.82	26.90	117	0.85
194	9.51	33.96	2.68	178	500	6.30	34.33	0.55	27.01	106	0.96
241	9.06	34.14	1.89	158							
317	8.38	34.33	1.26	134							
418	6.89	34.33	0.76	114							
558	5.84	34.33	0.37	100							

a) Mean value of 5.18 and 5.81 ml/L.
b) Alternate value, 5.66 ml/L, not used in interpolation.
c) Alternate value, 4.96 ml/L, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_{-5}^{3}	Z	T	S	O_2	σ_t	δT_{-5}^{3}	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m
117.60	STRANGER; April 23, 1958; 0800 GCT; 27°41'N, 117°00'W; sounding, 2150 fm; wind, 330°, force 4; weather, overcast; sea, very rough; wire angle, 14°.										
0	18.01	33.81	5.25a)	356	0	18.01	33.81	5.25	24.38	356	0.00
10	18.02	33.88	5.04b)	351	10	18.02	33.88	5.04	24.43	351	0.04
29	17.64	33.79	5.52	349	20	18.02	33.88	5.04	24.43	351	0.07
57	17.16	33.86	5.56	332	30	17.63	33.79	5.53	24.45	349	0.10
66	17.18	33.89	5.26	331	50	17.18	33.85	5.56	24.61	334	0.17
75	17.16	33.95	5.22	326	75	17.16	33.95	5.22	24.69	326	0.26
89	16.56	33.96	4.95	312	100	14.80	33.79	4.86	25.10	287	0.34
101	14.68	33.78	4.85	286	150	10.95	33.77	3.33	25.84	216	0.46
116	12.46	33.65	4.12	252	200	9.48	33.97	2.65	26.25	178	0.56
133	11.72	33.68	3.73	236	250	9.32	34.18	1.77	26.45	159	0.65
151	10.94	33.77	3.32	216	300	8.27	34.28	1.45	26.69	136	0.72
178	9.98	33.87	3.02	192	400	7.36	34.30	0.82	26.83	123	0.86
200	9.48	33.97	2.65	178	500	6.66	34.32	0.50	26.95	112	0.98
250	9.32	34.18	1.77	159							
327	7.78	34.29	1.32	128							
430	7.20	34.30	0.64	120							
566	6.14	34.33	0.46	104							
117.70	STRANGER; April 23, 1958; 0155 GCT; 27°20'N, 117°39.5'W; sounding, 2100+ fm; wind, 320°, force 3; weather, cloudy; sea, very rough; wire angle, 10°.										
0	18.24	33.85	5.44	358	0	18.24	33.85	5.44	24.36	358	0.00
10	18.24	33.96	5.48	350	10	18.24	33.96	5.48	24.44	350	0.04
30	17.88	33.89	5.48	347	20	18.08	33.92	5.48	24.45	349	0.07
59	17.31	33.93	5.52	331	30	17.88	33.89	5.48	24.47	347	0.10
69	17.26	34.07	5.42	320	50	17.46	33.91	5.52	24.59	336	0.17
88p	16.88	33.99	5.02	317	75	17.19	34.06	5.34	24.77	319	0.26
102p	14.94	33.84	4.35	286	100	15.25	33.97	4.40	25.06	291	0.33
116p	12.57	33.63	4.20	255	150	10.70	33.66	3.75	25.80	220	0.46
135p	11.04	33.58	4.20	232	200	10.37	34.20	1.48	26.29	174	0.56
153p	10.62	33.72	3.54	214	250	9.72	34.41	1.00	26.56	149	0.64
182p	10.55	33.97	2.30	195	300	9.27	34.43	0.66	26.65	140	0.72
205p	10.32	34.22	1.47	172	400	8.10	34.42	0.36	26.83	123	0.85
257p	9.64	34.42	0.95	147	500	7.00	34.40	0.30	26.97	110	0.98
337p	8.83	34.43	0.44	134							
444p	7.55	34.42	0.34	115							
582p	6.18	34.36	0.25	102							
117.80	STRANGER; April 22, 1958; 1900, 1946 GCT; 27°02.5'N, 118°14.5'W; sounding, 2400 fm; wind, 320°, force 4; weather, cloudy; sea, very rough; wire angle, 12°, 14°.										
0	18.14	33.77	5.56	362	0	18.14	33.77	5.56	24.31	362	0.00
10	18.14	33.73	5.44	365	10	18.14	33.73	5.44	24.28	365	0.04
29	17.59	33.77	5.58c)	349	20	17.92	33.75	5.46	24.35	358	0.07
58	17.02	33.76	5.73d)	337	30	17.57	33.76	5.59	24.46	348	0.11
67	17.14	33.87	5.52	331	50	16.83	33.67	5.76	24.54	340	0.18
77	16.72	33.82	5.48	326	75	16.75	33.82	5.49	24.69	326	0.26
90	17.10	34.04	5.31	318	100	15.40	33.80	5.12	24.98	298	0.34
104	14.85	33.73	5.09	292	150	11.48	33.63	4.56	25.64	236	0.47
117	13.51	33.64	4.97	272	200	9.39	33.95	2.74	26.25	178	0.58
135	12.17	33.62	4.23	248	250	8.99	34.16	1.99	26.48	156	0.66
154	11.30	33.64	4.65	232	300	8.47	34.24	1.47	26.63	142	0.74
					400	7.40	34.28	0.77	26.82	124	0.88
179	9.85	33.83	3.20	194	500	6.59	34.30	0.49	26.95	112	1.00
202	9.39	33.95	2.74	177							
253	8.98	34.16	1.98	156							
333	8.11	34.26	1.13	135							
438	7.04	34.28	0.63	120							
575	5.94	34.33	0.33	101							

a) Alternate value, 5.52 ml/L, not used in interpolation.
b) Alternate value, 5.74 ml/L, not used in interpolation.
c) Alternate value, 5.12 ml/L, not used in interpolation.
d) Alternate value, 5.15 ml/L, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED			
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m	

STRANGER; April 22, 1958; 1208 GCT; 26°39.5'N, 118°54.5'W; sounding, 2200 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 13°. 117.90

0	18.56	34.04	5.22	352	0	18.56	34.04	5.22	24.42	352	0.00	
10	18.58	34.02	5.22	354	10	18.58	34.02	5.22	24.40	354	0.04	
28	18.38	34.02	5.22	349	20	18.44	34.02	5.22	24.43	351	0.07	
57	18.38	34.09	5.20	344	30	18.38	34.02	5.22	24.45	349	0.10	
66	18.33	34.14	5.20	339	50	18.38	34.07	5.20	24.48	346	0.17	
74	18.21	34.10	4.88	339	75	18.20	34.10	4.88	24.55	339	0.26	
88	17.82	34.04	5.28	335	100	16.69	33.89	5.28	24.76	320	0.34	
100	16.69	33.89	5.28	320	150	11.84	33.58	4.68	25.54	246	0.48	
115	14.18	33.68	5.08	282	200	9.91	33.93	2.97	26.16	187	0.60	
132	13.20	33.64	4.92	266	250	9.02	34.08	2.42	26.41	163	0.68	
150	11.84	33.58	4.68	246	300	8.68	34.18	1.60	26.55	150	0.77	
176	10.35	33.64	4.11	216	400	7.70	34.28	0.87	26.78	128	0.91	
200	9.91	33.93	2.97	187	500	6.79	34.32	0.45	26.94	113	1.04	
248	9.06	34.07	2.49	164								
327	8.48	34.23	1.30	143								
428	7.38	34.29	0.72	123								
563	6.36	34.34	0.27	106								

STRANGER; April 20, 1958; 1817 GCT; 28°18.5'N, 115°24'W; sounding, 150 fm; wind, 320°, force 2; weather, fog; sea, moderate; wire angle, 08°. 118.39

0	16.99	33.62	5.32	346	0	16.99	33.62	5.32	24.48	346	0.00	
10	16.88	33.58	5.28	347	10	16.88	33.58	5.28	24.47	347	0.03	
30	16.72	33.61	5.27	341	20	16.77	33.60	5.27	24.51	343	0.07	
49	14.37	33.59	5.10	293	30	16.72	33.61	5.27	24.54	341	0.10	
73	11.30	33.59	4.04	235	50	14.15	33.59	5.10	25.09	288	0.17	
96	11.04	33.87	2.55	210	75	11.38	33.63	3.72	25.66	234	0.23	
118	11.16	34.17	1.70	190	100	10.80	33.90	2.40	25.97	204	0.29	
155	10.74	34.20	1.59	181	150	10.78	34.20	1.59	26.21	182	0.38	
192	10.36	34.33	1.15	165	200	10.26	34.36	1.08	26.43	161	0.47	
240	9.93	34.42	0.73	151	250	(9.83)	(34.43)	(0.68)	(26.56)	(149)	(0.55)	

STRANGER; April 11, 1958; 1856 GCT; 28°19'N, 114°53'W; sounding, 50 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 00°. 119.33

0	16.71	33.75	5.83	330	0	16.71	33.75	5.83	24.65	330	0.00	
25	16.46	33.75	5.73	325	10	16.50	33.75	5.75	24.69	326	0.03	
45	15.77	33.69	5.75	314	20	16.48	33.75	5.73	24.70	326	0.06	
65	13.94	33.68	4.49	280	30	16.40	33.75	5.73	24.72	324	0.10	
77	13.72	33.65	4.44	275	50	15.35	33.69	5.57	24.92	305	0.16	
					75	13.75	33.66	4.45	25.22	276	0.23	

STRANGER; April 11, 1958; 1507 GCT; 28°23'N, 114°14.5'W; sounding, 30 fm; wind, direction missing, force 1; weather, clear; sea, moderate; wire angle, 00°. 120.25

0	16.52	33.79	5.45a)	324	0	16.52	33.79	5.45	24.72	324	0.00	
10	16.49	33.78	5.60	324	10	16.49	33.78	5.60	24.72	324	0.03	
20	16.42	33.74	5.59	325	20	16.42	33.74	5.59	24.70	325	0.06	
30	16.23	33.74	5.68	321	30	16.23	33.74	5.68	24.75	321	0.10	
40	15.20	33.70	5.36	302								

STRANGER; April 11, 1958; 1242 GCT; 28°13'N, 114°35'W; sounding, 45 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 00°. 120.30

0	16.24	33.84	5.61	314	0	16.24	33.84	5.61	24.82	314	0.00	
10	16.22	33.81	5.68	315	10	16.22	33.81	5.68	24.81	315	0.03	
30	15.95	33.78	5.53	312	20	16.10	33.80	5.58	24.82	314	0.06	
40	15.70	33.73	5.66	310	30	15.95	33.78	5.53	24.84	312	0.09	
50	14.96	33.80	4.94	290	50	14.96	33.80	4.94	25.07	290	0.15	
60	13.04	33.63	4.59	264								

a) Alternate value, 5.94 ml/L, not used in interpolation.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

120.35 STRANGER; April 11, 1958; 0951 GCT; 28°02'N, 114°59.5'W; sounding, 43 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 03°.

0	16.12	-	5.76		0	16.12	(33.89)	5.76	(24.88)	(308)	(0.00)
10	16.10	33.89	5.86	308	10	16.10	33.89	5.86	24.88	308	0.03
20	16.12	33.78	5.81	315	20	16.12	33.78	5.81	24.81	315	0.06
30	16.08	33.78	5.60	314	30	16.08	33.78	5.60	24.82	314	0.09
50	14.24	33.66	5.26	285	50	14.24	33.66	5.26	25.12	285	0.15
60	13.06	33.65	4.97	263							

120.45 STRANGER; April 20, 1958; 2339 GCT; 27°43'N, 115°33'W; sounding, 1500 fm; wind, 310°, force 3; weather, fog; sea, moderate; wire angle, 21°.

0	17.13	33.62	5.36	350	0	17.13	33.62	5.36	24.44	350	0.00
9	17.15	33.62	5.44	350	10	17.14	33.62	5.44	24.44	350	0.04
28	16.66	33.64	5.44	338	20	16.92	33.63	5.44	24.50	344	0.07
56	14.98	33.60	5.32	304	30	16.56	33.64	5.43	24.60	335	0.10
65	14.84	33.77	4.63	289	50	15.25	33.60	5.34	24.86	310	0.17
66p	13.80	33.84	4.64	263	75	12.80	33.73	4.07	25.47	252	0.24
75p	12.80	33.73	4.07	252	100	11.66	33.94	2.62	25.85	216	0.30
82p	12.34	33.84	3.10	236	150	11.38	34.42	0.80	26.28	175	0.40
91p	11.98	33.84	3.14	229	200	10.52	34.50	0.84	26.49	155	0.48
103p	11.60	34.00	2.42	210	250	9.93	34.57	0.51	26.65	140	0.56
113p	11.52	34.07	2.08	204	300	9.22	34.50	0.43	26.71	134	0.63
132pa)	11.45	34.34	1.13	183	400	7.70	34.41	0.44	26.88	118	0.76
148p	11.40	34.41	0.80	177							
183p	10.74	34.47	0.93	161							
239p	10.05	34.58	0.56	142							
319p	8.96	34.48	0.41	132							
428p	7.22	34.39	0.48	114							

120.50 STRANGER; April 21, 1958; 0313 GCT; 27°32'N, 115°50.5'W; sounding, 2300 fm; wind, 320°, force 3; weather, fog; sea, very rough; wire angle, 00°.

0	17.84	33.93b)	5.24	343	0	17.84	33.93	5.24	24.51	343	0.00
10	17.84	33.90	5.67	345	10	17.84	33.90	5.67	24.49	345	0.03
30	17.70	33.93	5.05	340	20	17.79	33.92	5.32	24.52	343	0.07
45	17.26	33.86	5.11	335	30	17.70	33.93	5.05	24.55	340	0.10
55	16.50	33.87	5.46	317	50	16.95	33.86	5.23	24.67	328	0.17
65	14.48	33.73	5.28c)	285	75	13.94	33.92	3.30	25.38	260	0.24
74	14.06	33.93	3.31	262	100	12.06	33.85	2.70	25.70	230	0.30
93	12.10	33.78	3.20	235	150	10.10	34.02	2.20	26.19	184	0.41
106	12.04	33.93	2.55d)	224	200	9.06	34.18	1.98	26.48	156	0.50
120	11.29	34.05b)	2.04e)	201	250	8.83	34.30	1.36	26.62	143	0.57
144	10.33	34.02	2.17	187	300	8.61	34.33	0.87	26.68	138	0.64
172	9.38	34.04	2.27	171	400	7.72	34.34	0.46	26.82	124	0.78
209	9.03	34.21	1.94	153	500	6.77	34.36	0.34	26.96	110	0.90
261	8.81	34.31	1.32	142	600	(5.92)	(34.41)		(27.12)	(95)	(1.01)
342	8.28	34.34	0.62	132							
443	7.24	34.34	0.41	118							
587	6.06	34.40	0.27	98							

a) The bathythermograph trace seems to indicate considerable mixing at two separate levels. Since these features may be transient, they have not been incorporated in the property curves used for determining the interpolated values.
b) Possible evaporation; value falls on property curve.
c) Alternate value, 4.78 ml/L, not used in interpolation.
d) Alternate value, 3.30 ml/L, not used in interpolation.
e) Alternate value, 2.67 ml/L, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T}^{-5}{}_{3}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T}^{-5}{}_{3}$ 10^{-5} cm/g	ΔD dyn. m

STRANGER; April 21, 1958; 1106 GCT; 27°09.5'N, 116°29'W; sounding, 2020 fm; wind, 320°, force 2; weather, fog; sea, moderate; wire angle, 08°. 120.60

0	17.40	33.67	5.32	352	0	17.40	33.67	5.32	24.42	352	0.00
10	17.40	33.67	5.42	352	10	17.40	33.67	5.42	24.42	352	0.04
30	16.82	33.64	5.43	341	20	17.40	33.67	5.42	24.43	351	0.07
59	16.49	33.73	5.36	328	30	16.82	33.64	5.43	24.53	341	0.10
73	15.96	33.67	5.57	320	50	16.59	33.71	5.37	24.64	331	0.17
86	15.02	33.69	5.36	299	75	15.85	33.67	5.55	24.79	317	0.25
104	12.12	33.50	4.94	256	100	12.82	33.54	5.10	25.32	267	0.33
121	10.98	33.58	4.16	230	150	10.95	33.97	2.63	26.00	202	0.44
139	10.71	33.83	3.20	208	200	(9.44)	(34.12)	(2.03)	(26.38)	(166)	(0.54)
148	10.92	33.95	2.79	202	250	(9.59)	(34.31)	(1.00)	(26.50)	(154)	(0.62)
156	11.06	34.01	2.32	200	300	(8.93)	(34.32)	(0.78)	(26.62)	(143)	(0.70)
165	11.06	34.12	1.84	192	400	7.80	34.34	0.46	26.82	124	(0.84)
174	10.54	34.11	2.01	184	500	6.81	34.36	0.33	26.96	110	(0.96)
183	9.70	34.06	2.61	174							
193	9.53	34.11	2.11	167							
366	8.12	34.34	0.56	130							
526	6.57	34.36	0.30	107							

STRANGER; April 21, 1958; 1849 GCT; 26°47'N, 117°08.5'W; sounding, 2100 fm; wind, 310°, force 3; weather, fog; sea, rough; wire angle, 08°. 120.70

0	17.92	33.69	5.81	362	0	17.92	33.69	5.81	24.31	362	0.00
10	17.88	33.71	5.28	360	10	17.88	33.71	5.28	24.33	360	0.04
30	17.06	33.68	5.20	342	20	17.46	33.70	5.20	24.42	352	0.07
59	16.66	33.72	5.44	332	30	17.06	33.68	5.20	24.51	343	0.11
68	16.88	33.84	5.22	328	50	16.74	33.70	5.40	24.60	335	0.17
78	16.78	33.87	5.16	324	75	16.83	33.87	5.17	24.70	325	0.26
92	15.16	33.71	5.14	300	100	13.39	33.74	4.82	25.36	263	0.33
105	12.87	33.75a)	4.71	252	150	10.43	33.63	3.70	25.84	217	0.45
119	11.62	33.53	4.55	246	200	9.86	34.13	2.00	26.32	171	0.55
137	10.72	33.59	3.90	226	250	9.64	34.22	1.11	26.50	154	0.64
156	10.33	33.66	3.64	214	300	8.72	34.33	1.02	26.66	139	0.71
184	9.66	33.94	2.66	183	400	7.30	34.31	0.70	26.86	120	0.85
207	9.94	34.19	1.72	168	500	6.63	34.31	0.38	26.96	111	0.97
258	9.48	34.34	1.05	150							
338	8.00	34.32	0.97	129							
443	6.97	34.31	0.48	116							
578	5.98	34.34	0.30	101							

STRANGER; April 21, 1958; 2350 GCT; 26°29'N, 117°47'W; sounding, 2160 fm; wind, 270°, force 4; weather, cloudy; sea, rough; wire angle, 09°. 120.80

0	18.21	33.72	5.28	367	0	18.21	33.72	5.28	24.25	367	0.00
10	18.14	33.73	5.26	365	10	18.14	33.73	5.26	24.28	365	0.04
30	17.62	33.77	5.44	350	20	17.85	33.75	5.35	24.37	356	0.07
59	17.18	33.82	5.46	336	30	17.62	33.77	5.44	24.44	350	0.11
68	17.14	33.86	5.38	332	50	17.36	33.80	5.45	24.56	339	0.18
77	16.88	33.86	5.27	327	75	16.91	33.86	5.28	24.68	328	0.26
90	16.88	33.97	5.15	319	100	15.98	33.84	5.02	24.88	308	0.34
104	15.17	33.75b)	4.94	297	150	11.37	33.85	2.98	25.84	217	0.47
118	13.19	33.66	4.30	264	200	9.10	33.93	2.96	26.29	174	0.57
136	12.04	33.72	3.43	239	250	8.99	34.18	1.80	26.49	155	0.66
155	11.12	33.89	2.94	210	300	8.86	34.32	0.80	26.63	142	0.73
183	9.38	33.81	3.37	187	400	7.86	34.36	0.37	26.82	124	0.87
206	9.04	33.96	2.89	172	500	6.95	34.36	0.32	26.95	112	1.00
258	8.99	34.20	1.59	153	600	(5.97)	(34.36)		(27.08)	(99)	(1.11)
337	8.69	34.36	0.56	137							
441	7.42	34.36	0.35	119							
580	6.20	34.36	0.25	103							

a) This value was accepted after careful investigation.
b) Possible evaporation; value falls on property curve.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
120.90	STRANGER; April 22, 1958; 0558, 0629 GCT; 26°13'N, 118°27'W; sounding, 2250 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 09°, 11°.										
0	18.60	33.96	5.19	359	0	18.60	33.96	5.19	24.34	359	0.00
10	18.62	34.00	5.19	356	10	18.62	34.00	5.19	24.38	356	0.04
30	18.29	33.96	5.17	352	20	18.45	33.98	5.18	24.40	354	0.07
59	18.12	33.99	5.22	345	30	18.29	33.96	5.17	24.42	352	0.11
68	18.27	34.11	5.20	340	50	18.14	33.98	5.21	24.48	346	0.18
77	17.92	34.06	5.19	335	75	18.03	34.08	5.19	24.58	337	0.26
91	17.44	34.00	5.04	329	100	16.08	33.83	5.07	24.85	311	0.34
104	15.46	33.77	5.09	302	150	11.02	33.72	3.63	25.80	221	0.48
117	13.82	33.66	4.74	277	200	9.91	33.99	2.58	26.20	183	0.58
135	11.84	33.64	4.33	241	250	9.95	34.28	1.50	26.42	162	0.67
153	10.90	33.73	3.50	118	300	9.54	34.37	0.84	26.56	148	0.75
180	10.24	33.86	2.99	198	400	8.28	34.42	0.45	26.80	126	0.89
					500	7.20	34.41	0.34	26.95	112	1.02
203	9.89	34.00	2.52	182							
255	9.95	34.30	1.38	160							
334	9.14	34.41	0.62	140							
440	7.84	34.42a)	0.40	120							
575	6.34	34.38	0.27	103							
123.37	STRANGER; April 11, 1958; 0229 GCT; 25°24.5'N, 114°42'W; sounding, 35 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 05°.										
0	16.81	34.04	5.64	312	0	16.81	34.04	5.64	24.84	312	0.00
10	16.77	34.05	5.69	310	10	16.77	34.05	5.69	24.86	310	0.03
30	13.34	33.78	3.92	258	20	16.00	33.98	5.46	24.98	298	0.06
50	12.12	34.05	2.37	216	30	13.34	33.78	3.92	25.40	258	0.09
					50	12.12	34.05	2.37	25.85	216	0.14
123.42	STRANGER; April 11, 1958; 0002 GCT; 27°18'N, 114°57'W; sounding, 400 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 23°.										
0	17.94	34.07	5.53	336	0	17.94	34.07	5.53	24.59	336	0.00
9	17.90	34.14	5.60	329	10	17.88	34.14	5.59	24.65	330	0.03
28	17.65	34.05b)	5.45	330	20	17.74	34.09	5.49	24.65	330	0.07
55	17.69	34.10	5.49	327	30	17.66	34.05	5.47	24.65	330	0.10
64	17.12	34.20	4.73	307	50	17.69	34.09	5.49	24.66	329	0.16
74	15.42	33.96	4.32	288	75	15.38	33.96	4.31	25.10	287	0.24
88	13.96	33.90	3.64	262	100	13.13	33.84	3.64	25.49	250	0.31
101	13.04	33.83	3.64	250	150	9.95	34.03	2.57	26.22	181	0.42
115	12.05	34.04	2.46	216	200	9.95	34.33	1.24	26.46	158	0.50
131	11.62	34.20	1.79	196	250	9.51	34.47	0.77	26.64	141	0.58
146	10.01	34.02	2.60	182	300	9.21	34.50	0.53	26.71	134	0.65
169	10.26	34.29	1.76	166	400	7.42	34.42	0.44	26.92	114	0.78
188	10.04	34.31	1.38	162	500	6.77	34.43	0.26	27.02	105	0.89
231	9.61	34.44	0.88	145							
299	9.22	34.50	0.53	134							
392	7.53	34.42	0.47	115							
518	6.64	34.43	0.25	103							

a) Possible evaporation; value falls on property curve.
b) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

123.50

STRANGER; April 10, 1958; 2027 GCT; 27°05.5'N, 115°16'W; sounding, 2000 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 02°.

0	17.45	33.99	5.54	330	0	17.45	33.99	5.54	24.65	330	0.00
10	17.44	33.96	5.50	332	10	17.44	33.96	5.50	24.63	332	0.03
30	17.21	33.99	5.49	324	20	17.37	33.97	5.49	24.66	329	0.07
45	16.88	34.00	5.62	316	30	17.21	33.99	5.49	24.71	324	0.10
55	13.64	33.58	4.98	279	50	14.00	33.62	5.08	25.14	283	0.16
64	14.10	33.95	4.19	261	75	13.28	33.89	2.87	25.49	250	0.23
74	13.38	33.89	2.92	252	100	12.18	33.96	2.56	25.77	224	0.29
93	12.51	33.97	2.60	229	150	10.22	34.08	2.20	26.22	181	0.39
108	11.78	33.95	2.56	217	200	9.41	34.24	1.43	26.48	156	0.48
122	11.28	34.01	2.33	204	250	9.19	34.41	0.96	26.65	140	0.55
145	10.38	34.06	2.21	185	300	8.63	34.43	0.62	26.75	130	0.62
173	9.74	34.15	1.85	168	400	7.58	34.42	0.37	26.91	116	0.75
210	9.30	34.28	1.29	152	500	6.80	34.43	0.30	27.02	105	0.86
261	9.15	34.42	0.87	139							
339	8.09	34.43	0.48	122							
439	7.26	34.42	0.34	112							
579	6.14	34.45	0.29	95							

123.60

STRANGER; April 10, 1958; 1458 GCT; 26°45'N, 116°04.5'W; sounding, 2000 fm; wind, 320°, force 4; weather, partly cloudy; sea, very rough; wire angle, 10°.

0	17.15	33.88	5.45	331	0	17.15	33.88	5.45	24.64	331	0.00
10	17.16	33.81	5.56	336	10	17.16	33.81	5.56	24.59	336	0.03
35	17.15	33.88	5.51	331	20	17.16	33.84	5.54	24.61	334	0.07
64	14.75	33.59	5.42	301	30	17.16	33.87	5.53	24.63	332	0.10
74	13.83	33.58	5.16	283	50	17.00	33.87	5.47	24.67	328	0.17
88	12.68	33.55	4.71	263	75	13.78	33.58	5.13	25.16	282	0.24
98a)	11.98	33.58	4.54	248	100	11.82	33.60	4.48	25.55	244	0.31
117	11.30	33.80	3.33	220	150	11.47	34.27	1.45	26.14	188	0.42
131	11.49	34.07	2.24	204	200	10.22	34.36	1.19	26.43	161	0.51
149	11.52	34.27	1.44	189	250	9.71	34.44	0.94	26.59	146	0.58
171	10.52	34.27	1.66	172	300	8.92	34.42	0.96	26.70	135	0.66
197a)	10.26	34.34	1.21	162	400	7.55	34.39	0.53	26.88	118	0.79
223	10.14	34.45	0.87	152	500	6.55	34.36	0.40	27.00	107	0.91
276	9.25	34.43	1.06	140	600	5.89	34.42	0.27	27.13	94	1.01
356	8.07	34.41	0.63	124							
460	6.84	34.36	0.46	111							
601	5.88	34.42	0.27	94							

123.70

STRANGER; April 10, 1958; 0947 GCT; 26°25.5'N, 116°43'W; sounding, 2000+ fm; wind, 360°, force 4; weather, partly cloudy; sea, high; wire angle, 17°.

0	17.56	34.00	5.54	332	0	17.56	34.00	5.54	24.63	332	0.00
10	17.56	33.92	5.60	338	10	17.56	33.92	5.60	24.57	338	0.03
29	17.56	33.98	5.60	333	20	17.56	33.95	5.60	24.60	335	0.07
57	17.56	33.95	5.55	335	30	17.56	33.98	5.60	24.62	333	0.10
67	17.32	33.98	5.59	328	50	17.56	33.96	5.56	24.60	335	0.17
77	17.02	34.00	5.63	320	75	17.07	34.00	5.63	24.74	322	0.25
91	16.48	33.98	5.49	309	100	15.20	33.87	4.98	25.09	288	0.33
105	14.39	33.81	4.67	277	150	10.62	33.76	3.92	25.89	212	0.45
120	12.35	33.74	4.20	244	200	9.59	34.12	2.67	26.36	168	0.55
138	11.40	33.76	3.94	225	250	9.53	34.40	1.50	26.58	146	0.63
156	10.18	33.78	3.90	202	300	8.83	34.38	1.07	26.68	137	0.70
183a)	9.65	33.99	3.17	178	400	7.80	34.40	0.66	26.86	120	0.84
205	9.58	34.15	2.61	165	500	6.99	34.44	0.43	27.00	106	0.95
253	9.52	34.41	1.43	145							
330	8.39	34.37	0.88	131							
433	7.54	34.42	0.58	116							
567	6.36	34.46	0.32	97							

a) The bathythermograph trace seems to indicate considerable mixing at two separate levels. Since these features may be transient, they have not been incorporated in the property curves used for determining the interpolated values.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

123.80 STRANGER; April 10, 1958; 0413 GCT; 26°06'N, 117°21'W; sounding, 2000+ fm; wind, 360°, force 4, weather, clear; sea, very rough; wire angle, 13°.

0	17.55	33.86	5.54	342	0	17.55	33.86	5.54	24.52	342	0.00
10	17.56	33.82	5.52	344	10	17.56	33.82	5.52	24.50	344	0.03
30	17.46	33.86	4.11u	339	20	17.53	33.84	5.52	24.52	342	0.07
59	16.60	33.78	5.59	326	30	17.46	33.86	5.53	24.55	339	0.10
68	16.78	33.89	5.55	322	50	16.80	33.80	5.59	24.65	330	0.17
78	16.56	33.81u	5.19		75	16.63	33.88	5.28	24.76	320	0.25
92	14.98	33.69	4.18	298	100	13.97	33.71	4.15	25.23	275	0.33
106	13.28	33.72	4.16	262	150	10.70	33.88	3.18	25.98	204	0.45
120a)	12.08	33.67	4.19	243	200	9.77	34.15	2.26	26.35	169	0.54
137	10.96	33.71	3.95	221	250	9.20	34.33	1.55	26.58	146	0.62
155	10.62	33.93	2.96	199	300	8.88	34.41	1.42	26.70	135	0.70
181	10.12	34.10	2.39	178	400	7.90	34.45	0.61	26.88	118	0.83
204a)	9.70	34.16	2.24	167	500	6.46	34.47	0.24	27.09	98	0.94
254	9.17	34.34	1.52	145							
330	8.70	34.44	1.36	130							
432	7.46	34.45	0.29	112							
566	6.27	34.47	0.23	95							

127.34 STRANGER; April 8, 1958; 1839 GCT; 26°56'N, 114°08'W; sounding, 40 fm; wind, 270°, force 3; weather, partly cloudy; sea, rough; wire angle, 07°.

0	15.63	34.04	4.81	286	0	15.63	34.04	4.81	25.11	286	0.00
10	15.32	34.00	4.90	282	10	15.32	34.00	4.90	25.16	282	0.03
20	15.24	34.05	4.81	277	20	15.24	34.05	4.81	25.21	277	0.06
30	15.20	34.05	4.62	276	30	15.20	34.05	4.62	25.22	276	0.08
50	13.64	34.18	2.11	235	50	13.64	34.18	2.11	25.65	235	0.14
60	13.14	34.12	2.17	230							

127.40 STRANGER; April 8, 1958; 2342 GCT; 26°44'N, 114°27'W; sounding, 1600 fm; wind, 270°, force 5; weather, clear; sea, high; wire angle, 41°.

0	17.08	33.91	5.53	327	0	17.08	33.91	5.53	24.68	327	0.00
8	17.06	33.88	-	329	10	17.06	33.88	5.57	24.67	328	0.03
27	17.06	33.93	5.57	325	20	17.06	33.91	5.57	24.69	326	0.06
49	17.06	34.11	5.40	312	30	17.09	33.95	5.56	24.71	324	0.10
57	15 66	33.91	4.94	296	50	16.79	34.08	5.35	24.88	308	0.16
68	14.26	33.81	4.57	274	75	13.45	33.76	4.24	25.36	262	0.23
76	13.40	33.76	4.22	261	100	(12.68)	(33.96)	(3.02)	(25.67)	(233)	(0.30)
89	12.86	33.78	3.96	250							
98	12.76	33.96	3.02	234							
110p	11.20	33.86	3.11	214							
123p	10.46	33.95	2.71	194							
148p	10.34	34.11	2.29	181							
256p	9.38	34.38	1.00	145							
360p	8.32	34.42	0.58	126							

a) The bathythermograph trace seems to indicate considerable mixing at two separate levels. Since these features may be transient, they have not been incorporated in the property curves used for determining the interpolated values.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^{-5} cm/g	ΔD dyn. m

STRANGER; April 9, 1958; 0518 GCT; 26°25'N, 115°03'W; sounding, 2000 fm; wind, 320°, force 5; weather, clear; sea, high; wire angle, 22°. 127.50

0	17.52	34.00	6.46	330	0	17.52	34.00	6.46	24.65	330	0.00
9	17.52	33.98	6.44	332	10	17.52	33.98	6.43	24.63	332	0.03
32	17.52	33.96	6.37	333	20	17.52	33.97	6.41	24.63	332	0.07
60	17.44	33.96	6.35	332	30	17.52	33.96	6.38	24.62	333	0.10
69	17.44	33.99	6.48	330	50	17.48	33.96	6.36	24.63	332	0.17
83	17.46	34.14	6.31	319	75	17.45	34.05	6.41	24.70	325	0.25
91	16.33	34.05	5.59	300	100	15.08	33.96	5.21	25.18	280	0.33
108	14.16	33.91	4.97	265	150	11.66	34.09	3.17	25.96	206	0.45
121	12.96	33.90	4.22	242	200	10.98	34.39	2.11	26.33	170	0.54
138	12.16	34.02	3.57	218	250	10.03	34.45	1.80	26.54	151	0.62
159a)	11.34	34.14	2.94	195	300	9.37	34.44	1.73	26.65	140	0.70
185	11.12	34.31	2.33	179	400	8.18	34.42	0.91	26.82	124	0.84
209	10.88	34.41	1.97	168	500	7.11	34.43	0.28	26.98	109	0.96
260	9.84	34.45	1.79	147	600	(6.27)	(34.45)		(27.10)	(97)	(1.07)
339	8.87	34.43	1.64	134							
441	7.62	34.42	0.41	117							
581	6.40	34.45	0.22	98							

STRANGER; April 9, 1958; 1120 GCT; 26°05.5'N, 115°38.5'W; sounding, 2000+ fm; wind, 320°, force 5; weather, clear; sea, high; wire angle, 34°. 127.60

0	18.36	34.27	5.21	330	0	18.36	34.27	5.21	24.65	330	0.00
8	18.34	34.25	5.28	331	10	18.34	34.25	5.27	24.64	331	0.03
29	18.36	34.26	5.13	330	20	18.35	34.26	5.25	24.64	331	0.07
54	18.41	34.27	5.36	332	30	18.37	34.27	5.16	24.64	331	0.10
61	18.38	34.25	-	332	50	18.40	34.27	5.31	24.63	332	0.16
72	18.42	34.25	-	333	75	18.42	34.27		24.63	332	0.25
79	18.42	34.27	-	332	100	17.56	34.27		24.84	312	0.33
94	17.96	34.28	-	320	150	11.97	33.88		25.74	226	0.47
104	17.18	34.26	-	304	200	11.13	34.07		26.05	197	0.57
118	14.82	33.91	-	278	250	10.60	34.22		26.26	177	0.67
136	13.20	33.83	-	252	300	10.07	34.42		26.51	153	0.76
157	11.40	33.89	-	215	400	8.99	34.53		26.77	129	0.90
179a)	10.70	33.83	-	208							
189p	11.19	34.29r	-								
262p	10.44	34.27	-	171							
357p	9.57	34.54	-	136							
486p	7.59	34.46	-	114							

STRANGER; April 9, 1958; 1630 GCT; 25°44.5'N, 116°16.5'W; sounding, 2000 fm; wind, 360°, force 4; weather, cloudy; sea, high; wire angle, 14°. 127.70

0	17.68	34.02	5.57	333	0	17.68	34.02	5.57	24.62	333	0.00
10	17.66	34.00	5.58	334	10	17.66	34.00	5.58	24.61	334	0.03
34	17.66	34.04b)	5.47	331	20	17.66	34.01	5.53	24.62	333	0.07
63	17.60	34.03	5.29	330	30	17.66	34.03	5.48	24.63	332	0.10
73	17.32	34.04	5.41	323	50	17.64	34.03	5.36	24.64	331	0.17
87	16.72	33.95	5.21	316	75	17.22	34.03	5.40	24.74	322	0.25
97	15.35	33.86	4.92	294	100	14.98	33.86	4.74	25.12	285	0.33
115	13.18	33.89	3.51	247	150	11.04	33.96	2.66	25.98	203	0.45
129	12.32	33.86	3.25	234	200	11.05	34.34	1.30	26.27	176	0.54
147	11.10	33.93	2.73	207	250	10.38	34.49	0.81	26.50	154	0.63
170	10.94	34.08	2.19	193	300	9.63	34.49	0.74	26.64	141	0.70
196	11.06	34.31	-	178	400	8.60	34.48	0.37	26.80	126	0.84
222	10.86	34.47	0.79	163	500	7.45	34.46	0.31	26.95	112	0.97
274	9.94	34.49	0.85	146	600	6.21	34.41	0.42	27.08	99	1.08
354	9.08	34.49	0.48	133							
460	7.93	34.47	0.30	117							
600	6.21	34.41	0.42	99							

a) The bathythermograph trace seems to indicate considerable mixing at two separate levels. Since these features may be transient, they have not been incorporated in the property curves used for determining the interpolated values.

b) Possible evaporation; value falls on property curve.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
127.80	STRANGER; April 9, 1958; 2147 GCT; 25°25'N, 116°51'W; sounding, 2000 fm; wind, 300°, force 4; weather, partly cloudy; sea, very rough; wire angle, 10°.										
0	19.36	34.49	5.32	339	0	19.36	34.49	5.32	24.56	339	0.00
10	19.29	34.49	5.34	337	10	19.29	34.49	5.34	24.58	337	0.03
30	19.14	34.49	5.06	334	20	19.20	34.49	5.19	24.60	335	0.07
59	19.12	34.48	5.24	333	30	19.14	34.49	5.06	24.61	334	0.10
69	19.06	34.47	5.18	332	50	19.13	34.49	5.13	24.61	334	0.17
79	17.55	34.23	4.87	315	75	18.78	34.43	5.08	24.65	330	0.25
93	14.68	33.84	4.55	281	100	14.42	33.80	4.50	25.24	274	0.33
108	13.70	33.77	4.37	266	150	11.60	33.94	2.83	25.86	214	0.45
123	12.68	33.77	3.79	247	200	11.12	34.37	1.31	26.28	175	0.55
141	11.74	33.88	3.08	221	250	10.56	34.47	0.87	26.46	158	0.64
159	11.50	34.01	2.51	208	300	9.82	34.51	0.56	26.62	143	0.71
186	11.16	34.23	1.62	186	400	8.42	34.46	0.39	26.81	125	0.85
208	11.08	34.40	1.18	172	500	7.30	34.44	0.34	26.96	110	0.98
257	10.42	34.48	0.82	155							
334	9.38	34.52	0.42	135							
437	7.92	34.43	0.39	120							
570	6.64	34.47	0.25	100							
130.30	STRANGER; April 7, 1958; 1823 GCT; 26°31'N, 113°35.5'W; sounding, 25 fm; wind, 320°, force 1; weather, partly cloudy; sea, moderate; wire angle, 00°.										
0	16.26	34.02	5.24	301	0	16.26	34.02	5.24	24.96	301	0.00
10	16.14	34.00	5.27	300	10	16.14	34.00	5.27	24.97	300	0.03
20	15.77	33.98	4.94	293	20	15.77	33.98	4.94	25.04	293	0.06
30	14.42	-	3.48		30	14.42		3.48			
130.35	STRANGER; April 7, 1958; 1613 GCT; 26°22.5'N, 113°48.5'W; sounding, 200 fm; wind, 320°, force 2; weather, cloudy; sea, very rough; wire angle, 00°.										
0	16.94	33.97	5.28	320	0	16.94	33.97	5.28	24.76	320	0.00
10	16.92	33.99	5.36	318	10	16.92	33.99	5.36	24.78	318	0.03
30	17.00	34.02	5.04	317	20	16.97	34.00	5.20	24.78	318	0.06
50	17.02	34.09	5.32	313	30	17.00	34.02	5.04	24.79	317	0.10
60	16.31	34.05	4.87	300	50	17.02	34.09	5.32	24.83	313	0.16
74a)	14.78	33.88	4.01	280	75	14.63	33.88	3.97	25.21	277	0.23
98	12.58	33.90	3.06	235	100	12.50	33.90	3.00	25.66	234	0.30
121	12.00	34.20	1.64	203	150	11.75	34.54	0.60	26.30	173	0.40
158	11.64	34.56	0.50	170	200	11.02	(34.61)	0.40	(26.48)	(156)	(0.48)
176	11.38	34.56	0.41	165	250	10.62		0.36			
195	11.04	34.60	0.40	157	300	(9.97)					
242	10.74	34.69u	0.38								
290	10.08	34.57	0.24								

a) The bathythermograph trace seems to indicate considerable mixing at two separate levels. Since these features may be transient, they have not been incorporated in the property curves used for determining the interpolated values.

OBSERVED					INTERPOLATED				COMPUTED			
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
STRANGER; April 7, 1958; 1256, 1317 GCT; 26°12'N, 114°07'W; sounding, 1000 fm; wind, 320°, force 3; weather, cloudy; sea, very rough; wire angle, 09°, 09°.												130.40
0	17.26	33.99	5.50	325	0	17.26	33.99	5.50	24.71	325	0.00	
10	17.26	34.02	5.56	323	10	17.26	34.02	5.56	24.73	323	0.03	
30	17.27	34.06a)	5.44		20	17.27	34.02	5.49	24.73	323	0.06	
60	17.18	34.02	5.33	321	30	17.27	34.02	5.44	24.73	323	0.10	
69	16.02	33.86	5.08	307	50	17.23	34.02	5.37	24.74	322	0.16	
79	14.86	33.82	4.59	286	75	15.30	33.83	4.78	25.03	294	0.24	
93	13.14	33.81	3.53	252	100	12.43	33.79	3.49	25.58	241	0.31	
107	12.02	33.77	3.48	235	150	11.60	34.34	1.04	26.17	185	0.42	
120	11.66	33.88	3.10	220	200	10.98	34.51	0.57	26.42	162	0.50	
138	11.80	34.20	1.63	199	250	10.39	34.56	0.53	26.56	149	0.58	
156	11.52	34.40	0.91	180	300	9.67	34.56	0.52	26.68	137	0.66	
184	11.27	34.51b)	0.85	170	400	8.25	34.48	0.34	26.85	121	0.79	
206	10.88	34.51	0.54	160	500	7.00	34.43	0.25	26.99	108	0.91	
257	10.30	34.56	0.53c)	147								
336	9.10	34.55	0.49	128								
439	7.76	34.44	0.28	117								
573	6.14	34.43	0.24	96								
STRANGER; April 7, 1958; 0712 GCT; 25°57.5'N, 114°49'W; sounding, 2000 fm; wind, 320°, force 3; weather, cloudy; sea, very rough; wire angle, 15°.												130.50
0	17.34	33.89	5.36	334	0	17.34	33.89	5.36	24.61	334	0.00	
10	17.35	33.95	5.05	330	10	17.35	33.95	5.05	24.65	330	0.03	
29	17.35	33.94	5.34	331	20	17.35	33.94	5.20	24.64	331	0.07	
58	17.60	34.07	5.30	327	30	17.35	33.94	5.34	24.64	331	0.10	
68	17.56	34.11	5.28	323	50	17.35	33.94	5.34	24.64	331	0.16	
77	17.01	34.04	5.22	316	75	17.20	34.07	5.23	24.78	318	0.25	
92	16.09	33.98	4.59	300	100	14.57	33.96	4.48	25.28	270	0.32	
104	13.94	33.95b)	4.44	258	150	11.54	34.15	2.10	26.04	198	0.44	
119	12.64	33.92	4.30	235	200	11.26	34.52	0.83	26.38	166	0.53	
135	11.90	34.02	3.65	214	250	10.52	34.56	0.78	26.55	150	0.61	
152	11.51	34.16	2.05	197	300	9.58	34.51	0.64	26.67	139	0.69	
180	11.32	34.42	1.04	174	400	8.06	34.43	0.59	26.84	122	0.82	
200	11.26	34.52	-	166	500	7.00	34.45	0.47	27.00	107	0.94	
249	10.54	34.56	0.79	150								
325	9.08	34.48	0.61	134								
424	7.76	34.42	0.59	118								
558	6.59	34.48	0.37	98								

a) Possible evaporation; value does not fall on property curve.
b) Possible evaporation; value falls on property curve.
c) Alternate value, 0.71 ml/L, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

130.60 STRANGER; April 7, 1958; 0133 GCT; 25°38'N, 115°28'W; sounding, 2000+ fm; wind, 320°, force 2; weather, partly cloudy; sea, high; wire angle, 07°.

0	19.63	34.55	5.28	341	0	19.63	34.55	5.28	24.54	341	0.00
10	19.68	34.46	5.23	349	10	19.68	34.46	5.23	24.45	349	0.03
29	19.67	34.58	5.34	340	20	19.68	34.52	5.25	24.50	344	0.07
58	18.61	34.29	5.28	336	30	19.66	34.58	5.34	24.55	339	0.10
68	17.88	34.19	5.32	325	50	19.08	34.43	5.31	24.58	337	0.17
78	17.70	34.19	5.40	321	75	17.77	34.19	5.39	24.74	322	0.25
92	16.35	33.99	4.84	305	100	15.20	33.90	4.43	25.09	288	0.33
106	14.48	33.85	4.22	276	150	11.28	33.95	2.68	25.92	209	0.46
120	13.14	33.78	3.93	254	200	10.78	34.32	1.70	26.30	173	0.55
138a)	11.86	33.88	3.03	224	250	9.81	34.34	1.47	26.48	156	0.64
156	11.08	33.97	2.54	204	300	9.18	34.38	1.06	26.63	142	0.72
184	10.72	34.11	2.13	187	400	8.28	34.43	0.44	26.81	125	0.85
206a)	10.79	34.36	1.24	170	500	7.27	34.47	0.27	26.98	109	0.98
257	9.64	34.34	1.49	153							
336	8.90	34.40	0.74b)	136							
442	7.84	34.45	0.32	117							
578	6.58	34.49	0.23	98							

130.70 STRANGER; April 6, 1958; 1924, 1944 GCT; 25°12'N, 116°19'W; sounding, 2000+ fm; wind, 320°, force 4; weather, partly cloudy; sea, high; wire angle, 08°, 09°.

0	19.57	34.51	5.34	342	0	19.57	34.51	5.34	24.52	342	0.00
10	19.54	34.52	5.30	341	10	19.54	34.52	5.30	24.53	341	0.03
30	19.26	34.44	5.27	340	20	19.40	34.48	5.27	24.53	341	0.07
60	19.17	34.43	5.24	338	30	19.26	34.44	5.27	24.54	340	0.10
70	19.14	34.43	5.38	338	50	19.19	34.43	5.25	24.56	338	0.17
80	18.30	34.34	5.38	324	75	18.98	34.42	5.38	24.60	335	0.25
94	15.94	34.01	4.69	295	100	15.18	33.93	4.69	25.14	284	0.33
108	14.06	33.84	4.69	268	150	11.56	33.99	2.80	25.91	210	0.46
123	12.56	33.78	3.82	244	200	10.67	34.30	1.56	26.31	172	0.55
143	11.78	33.89	3.21	222	250	10.30	34.49	1.02	26.52	152	0.64
162	11.28	34.13	2.13	196	300	9.50	34.50	0.67	26.66	139	0.71
192	10.80	34.29	1.60	175	400	8.20	34.46	0.47	26.85	121	0.85
215	10.82	34.40	1.14	168	500	7.18	34.47	0.45	27.00	107	0.97
255	10.14	34.49	1.00	149							
332	9.14	34.50	0.46	133							
433	7.74	34.45	0.49	116							
566	6.70	34.51	0.41	98							

130.80 STRANGER; April 6, 1958; 1426 GCT; 24°51'N, 116°56.5'W; sounding, 2000 fm; wind, 320°, force 3; weather, cloudy; sea, high; wire angle, 03°.

0	19.26	34.45	5.25	339	0	19.26	34.45	5.25	24.56	339	0.00
10	19.24	34.42	5.23	341	10	19.24	34.42	5.23	24.54	341	0.03
30	19.25	34.42	5.20	341	20	19.25	34.42	5.22	24.54	341	0.07
60	19.25	34.39	5.09	343	30	19.25	34.42	5.20	24.54	341	0.10
70	19.24	34.42	4.94	341	50	19.25	34.40	5.15	24.52	342	0.17
80	18.79	34.30	5.28	338	75	19.13	34.39	5.00	24.54	340	0.26
94	17.62	34.22	5.00	317	100	16.52	34.10	4.89	24.91	305	0.34
109	14.42	33.77	4.78	280	150	11.33	33.86	3.47	25.85	216	0.47
123	12.83	33.71	4.00	254	200	10.17	34.18	1.97	26.31	172	0.57
142	11.61	33.78	3.69	227	250	9.67	34.40	1.28	26.56	149	0.65
160	11.07	33.93	3.22	206	300	9.05	34.42	0.91	26.68	137	0.72
189	10.33	34.09	2.44	182	400	8.03	34.43	0.42	26.84	122	0.86
210	10.10	34.25	1.63	167	500	7.07	34.45	0.33	27.00	107	0.98
260	9.54	34.41	1.27	146							
337	8.68	34.43	0.53	131							
440	7.60	34.43	0.36	116							
572	6.54	34.48	0.32	98							

a) The bathythermograph trace seems to indicate considerable mixing at two separate levels. Since these features may be transient, they have not been incorporated in the property curves used for determining the interpolated values.

b) Alternate value, 1.32 ml/L, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
STRANGER; April 5, 1958; 0215 GCT; 26°02.5'N, 112°54.5'W; sounding, 57 fm; wind, 320°, force 5; weather, partly cloudy; sea, high; wire angle, 05°.											133.25
0	18.97	34.37	4.59	338	0	18.97	34.37	4.59	24.57	338	0.00
10	18.96	34.52	4.65	326	10	18.96	34.52	4.65	24.69	326	0.03
30	18.98	34.50	4.71	328	20	18.97	34.51	4.68	24.67	328	0.06
50	18.70	34.51	-	321	30	18.98	34.50	4.71	24.67	328	0.10
75	14.96	34.08	-	269	50	18.70	34.51		24.75	321	0.16
					75	14.96	34.08		25.29	269	0.24
STRANGER; April 5, 1958; 0430 GCT; 25°54'N, 113°09.5'W; sounding, 100 fm; wind, 320°, force 6; weather, partly cloudy; sea, high; wire angle, 12°.											133.30
0	18.52	34.46	5.38	320	0	18.52	34.46	5.38	24.76	320	0.00
10	18.52	34.41	5.42	324	10	18.52	34.41	5.42	24.71	324	0.03
29	18.54	34.47	5.37	320	20	18.53	34.44	5.39	24.74	322	0.06
48	18.51	34.38	5.35	326	30	18.54	34.47	5.36	24.76	320	0.10
72	16.71	34.15	4.39	301	50	18.48	34.37	5.34	24.69	326	0.16
95	14.26	33.93	3.41	266	75	16.42	34.12	4.27	25.00	297	0.24
118	13.16	34.40	1.05	209	100	13.54	33.95	2.93	25.49	250	0.31
146	12.34	34.51	0.57	186	150	(12.22)	(34.52)	(0.51)	(26.19)	(183)	(0.42)
STRANGER; April 5, 1958; 1032 GCT; 25°34'N, 113°50'W; sounding, 1100 fm; wind, 320°, force 6; weather, partly cloudy; sea, high; wire angle, 07°.											133.40
0	18.86	34.48	5.34	327	0	18.86	34.48	5.34	24.68	327	0.00
10	18.85	34.50	5.23	326	10	18.85	34.50	5.23	24.69	326	0.03
35	18.86	34.45	5.29	329	20	18.85	34.48	5.24	24.68	327	0.06
65	17.84	34.16	5.25	326	30	18.85	34.46	5.25	24.67	328	0.10
74	17.07	34.13	5.20	311	50	18.79	34.43	5.27	24.65	330	0.16
88	15.26	33.96	3.96	284	75	16.95	34.12	5.17	24.87	309	0.24
98	13.68	33.82	3.69	262	100	13.56	33.82	3.63	25.39	260	0.32
117	12.54	34.00	2.58	227	150	11.91	34.38	0.93	26.15	188	0.43
130a)	12.04	34.11	2.08	211	200	11.08	34.48	0.62	26.38	166	0.52
148	11.94	34.36	0.94	190	250	10.47	34.54	0.47	26.53	152	0.60
171	11.64	34.45	0.76	178	300	9.84	34.54	0.31	26.64	141	0.68
199	11.11	34.48	0.62	167	400	8.21	34.44	0.27	26.83	123	0.81
226	10.72	34.52	0.55	157	500	6.99	34.44	0.25	27.00	107	0.93
280	10.16	34.56	0.36	144	600	6.19	34.43	0.41	27.10	97	1.04
363	8.74	34.45	0.29	130							
470	7.28	34.44b)	0.23	110							
611	6.10	34.43	0.43	96							

a) The bathythermograph trace seems to indicate considerable mixing at two separate levels. Since these features may be transient, they have not been incorporated in the property curves used for determining the interpolated values.

b) Possible evaporation; value falls on property curve.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

133.50 STRANGER; April 5, 1958; 1623 GCT; 25°12'N, 114°35'W; sounding, 2000 fm; wind, 320°, force 5; weather, clear; sea, high; wire angle, 10°.

0	18.96	34.40	5.04	335	0	18.96	34.40	5.04	24.60	335	0.00
10	18.95	34.40	5.18	335	10	18.95	34.40	5.18	24.60	335	0.03
30	18.94	34.41	5.13	334	20	18.95	34.40	5.16	24.60	335	0.07
60	18.94	34.41	5.12	334	30	18.94	34.41	5.13	24.61	334	0.10
69	18.91	34.36	5.12	337	50	18.94	34.41	5.13	24.61	334	0.17
78	18.72	34.34	5.22	334	75	18.82	34.35	5.17	24.60	335	0.25
93	17.57	34.13	5.03	322	100	17.30	34.09	4.98	24.77	319	0.34
107	15.98	33.95	4.54	299	150	11.94	34.18	1.87	25.98	203	0.46
121	13.26	33.87	3.15	250	200	10.48	34.32	1.47	26.36	168	0.56
140	12.28	34.09	2.22	216	250	9.40	34.34	1.32	26.56	149	0.64
157	11.70	34.22	1.65	196	300	8.99	34.38	0.91	26.66	139	0.71
186	11.24	34.34	1.33	179	400	8.20	34.46	0.34	26.84	122	0.85
209	10.01	34.31	1.51	161	500	7.25	34.45	0.25	26.96	110	0.97
259	9.27	34.34	1.26	146							
337	8.72	34.42	0.58	132							
439	7.86	34.46	0.25	117							
572	6.41	34.42	0.26	101							

133.65 STRANGER; April 6, 1958; 0037, 0102 GCT; 24°49'N, 115°20'W; sounding, 2000+ fm; wind, 320°, force 5; weather, partly cloudy; sea, high; wire angle, 32°, 45°.

0	19.53	-	5.28		0	19.53	(34.44)	5.28	(24.47)	(347)	(0.00)
8	19.48	34.44	5.26	346	10	(19.47)	(34.44)	(5.24)	(24.49)	(345)	(0.03)
34	19.42	34.45	5.19	343	20	(19.45)	(34.44)	(5.21)	(24.50)	(344)	(0.07)
55	18.89	34.34	5.28	338	30	(19.44)	(34.45)	(5.20)	(24.51)	(344)	(0.10)
63	18.75	34.31	5.39	337	50	19.37	34.44	5.19	24.53	342	(0.17)
75	17.80	34.12	5.22	328	75	17.80	34.12	5.22	24.67	328	(0.26)
82	17.51	34.05	5.30	326	100	17.20	34.11	5.10	24.81	315	(0.34)
88	17.12	33.96	5.48	324	150	12.19	34.18	1.87	25.94	207	(0.46)
95	17.54	34.18	5.18	318	200	11.60	34.54	0.60	26.33	170	(0.56)
102	16.82	34.04	5.08	312	250	11.01	34.62	0.41	26.50	154	(0.64)
107a)	15.02	33.85	4.10	287	300	10.09	34.55	0.41	26.60	145	(0.72)
109	14.66	33.86	4.06	279							
117	13.26	33.84	4.12	252							
155	12.04	34.24	1.51	201							
228	11.37	34.64	0.41	159							
379	8.58	34.42	0.41	130							

133.70 STRANGER; April 6, 1958; 0350 GCT; 24°38.5'N, 115°41'W; sounding, 2000 fm; wind, 320°, force 4; weather, clear; sea, very rough; wire angle, 15°.

0	20.42	34.64	5.14	354	0	20.42	34.64	5.14	24.40	354	0.00
10	20.40	34.64	5.11	354	10	20.40	34.64	5.11	24.40	354	0.04
34	20.39	34.63	5.10	354	20	20.40	34.64	5.10	24.40	354	0.07
63	20.26	34.60	5.09	353	30	20.39	34.64	5.10	24.40	354	0.11
72	18.93	34.31	4.85	342	50	20.36	34.62	5.10	24.40	354	0.18
87	16.44	34.00	4.28	306	75	18.30	34.22	4.71	24.62	333	0.26
96	14.30	33.78	4.44	278	100	14.02	33.80	4.29	25.28	270	0.34
115a)	13.31	33.92	3.24	248	150	11.23	34.05	2.49	26.01	201	0.46
129	12.48	34.05	2.81	223	200	11.19	34.51	0.85	26.38	166	0.55
149a)	11.26	34.05	2.51	201	250	10.59	34.54	0.70	26.52	153	0.63
172	10.93	34.24	1.89	181	300	10.38	34.66	0.24	26.64	141	0.71
199	11.22	34.51	0.82	166	400	8.70	34.58	0.33	26.86	120	0.84
226	10.56	34.43	1.06	160	500	7.40	34.57	0.23	27.05	102	0.96
280	10.66	34.67	0.22	145	600	6.40	34.53	0.19	27.15	92	1.06
360	9.24	34.58	0.37	129							
466	7.80	34.58	0.25	107							
606	6.36	34.53	0.19	92							

a) The bathythermograph trace seems to indicate considerable mixing at two separate levels. Since these features may be transient, they have not been incorporated in the property curves used for determining the interpolated values.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

STRANGER; April 6, 1958; 0859 GCT; 24°15'N, 116°25'W; sounding, 2000+ fm; wind, 340°, force 3; weather, clear; sea, rough; wire angle, 07°. 133.80

0	20.32	34.67	5.02	349	0	20.32	34.67	5.02	24.45	349	0.00
10	20.30	34.61	5.02	353	10	20.30	34.61	5.02	24.41	353	0.04
30	20.30	34.67	5.00	349	20	20.30	34.64	5.01	24.43	351	0.07
60	20.30	34.66	5.10	350	30	20.30	34.67	5.00	24.45	349	0.10
70	20.25	34.67	5.14	348	50	20.30	34.66	5.05	24.45	349	0.18
80	19.92	34.54	5.02	349	75	20.13	34.64	5.13	24.46	348	0.26
94	16.73	34.29	3.94	292	100	16.20	34.24	3.47	25.14	284	0.34
108	15.57	34.18	2.71	274	150	13.13	34.38	1.52	25.90	211	0.47
123a)	14.86	34.26	1.99	254	200	10.62	34.34	1.37	26.35	168	0.56
142	13.81	34.45	1.40	219	250	10.02	34.52	0.65	26.59	145	0.65
160	12.18	34.27	1.67	201	300	9.62	34.58	0.33	26.71	134	0.72
187	11.04	34.33	1.40	176	400	8.60	34.56	0.23	26.86	120	0.85
209	10.38	34.35	1.37	164	500	7.45	34.54	0.26	27.01	106	0.97
259	9.99	34.54	0.55	143							
337	9.28	34.60	0.24	128							
439	8.18	34.54	0.23	115							
572	6.64	34.54	0.30	96							

STRANGER; April 4, 1958; 1851 GCT; 25°34'N, 112°18.5'W; sounding, 42 fm; wind, 320°, force 6; weather, partly cloudy; sea, high; wire angle, 08°. 137.23

0	18.69	34.56	5.20	317	0	18.69	34.56	5.20	24.79	317	0.00
10	18.68	34.59	5.25	315	10	18.68	34.59	5.25	24.81	315	0.03
30	18.66	34.57	5.11	315	20	18.67	34.58	5.20	24.81	315	0.06
40	18.41	34.51	4.69	314	30	18.66	34.57	5.11	24.81	315	0.09
50	15.88	34.36	2.18	268	50	15.88	34.36	2.18	25.30	268	0.15
60	15.62	34.37	2.07	261							

STRANGER; April 4, 1958; 1501 GCT; 25°14'N, 112°44.5'W; sounding, 130 fm; wind, 320°, force 5; weather, cloudy; sea, high; wire angle, 10°. 137.30

0	19.15	34.60	5.21	325	0	19.15	34.60	5.21	24.70	325	0.00
10	19.15	34.63	5.25	323	10	19.15	34.63	5.25	24.72	323	0.03
30	19.14	34.60	5.17	325	20	19.14	34.62	5.20	24.71	324	0.06
40	19.10	34.62	5.16	322	30	19.14	34.60	5.17	24.70	325	0.10
50	18.98	34.63	5.15	319	50	18.98	34.63	5.15	24.77	319	0.16

STRANGER; April 4, 1958; 1135 GCT; 25°04.5'N, 113°05'W; sounding, 600 fm; wind, 320°, force 5; weather, partly cloudy; sea, high; wire angle, 25°. 137.35

0	19.18	34.54	5.22	330	0	19.18	34.54	5.22	24.65	330	0.00
9	19.17	34.59	5.26	327	10	19.17	34.59	5.26	24.68	327	0.03
27	19.18	34.54	5.29	330	20	19.18	34.57	5.27	24.67	328	0.06
55	19.16	34.52	5.26	331	30	19.18	34.54	5.28	24.64	331	0.10
64	19.10	34.55	5.10	328	50	19.17	34.53	5.27	24.64	331	0.16
72	17.96	34.31	4.90	318	75	17.10	34.21	4.60	24.90	306	0.24
85	15.05	34.04	3.45	274	100	13.96	34.04	2.88	25.47	252	0.32
97	14.25	34.04	2.97	258	150	11.63	34.34	1.10	26.16	186	0.42
109	12.84	34.02	2.56	232	200	11.02	34.57	0.53	26.46	158	0.51
124	11.95	34.05	2.14	213	250	10.33	34.58	0.44	26.58	146	0.59
139	11.60	34.22	1.70	194	300	9.61	34.55	0.52	26.68	137	0.66
161	11.68	34.45	0.82	178	400	8.27	34.54	0.31	26.89	117	0.79
179	11.35	34.54	0.75	166	500	(6.61)	(34.43)	(0.24)	(27.05)	(102)	(0.91)
221	10.75	34.59	0.38	152							
284	9.81	34.55	0.54	140							
372	8.70	34.56	0.36	122							
487	6.84	34.43	0.24	106							

a) The bathythermograph trace seems to indicate considerable mixing at two separate levels. Since these features may be transient, they have not been incorporated in the property curves used for determining the interpolated values.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

137.40 STRANGER; April 4, 1958; 0833 GCT; 24°55'N, 113°24'W; sounding, 1200 fm; wind, 320°, force 4; weather, clear; sea, very rough; wire angle, 11°.

0	19.07	34.44	335	0	19.07	34.44		24.60	335	0.00
10	19.06	34.51	330	10	19.06	34.51		24.65	330	0.03
29	18.54	34.34	330	20	18.83	34.45		24.65	330	0.07
58	17.08	34.04	318	30	18.54	34.34		24.66	330	0.10
68	16.62	34.02	309	50	17.15	34.05		24.77	319	0.16
77	15.90	33.95	298	75	16.08	33.97		24.96	301	0.24
92	13.65	33.86	258	100	(13.22)	(33.94)		(25.56)	(244)	(0.31)
100a)	13.21	33.94	244							
123a)	12.44	34.14								
141a)	11.76	34.20								
184a)	10.88	34.36								
250a)	10.46	34.56								
337a)	9.25	34.52								
448a)	7.58	34.45								

137.50 STRANGER; April 4, 1958; 0252 GCT; 24°38'N, 114°00'W; sounding, 2000 fm; wind, 320°, force 4; weather, clear; sea, very rough; wire angle, 12°.

0	18.18	34.09	5.54	339	0	18.18	34.09	5.54	24.56	339	0.00
10	18.18	34.16	5.80	334	10	18.18	34.16	5.80	24.61	334	0.03
29	17.82	34.11	5.57	330	20	17.98	34.13	5.71	24.64	331	0.07
58	16.96	34.07	5.59	312	30	17.83	34.11	5.57	24.66	329	0.10
68	16.82	34.09	5.26	308	50	17.17	34.08	5.58	24.79	317	0.16
77	16.00	33.98	4.60	298	75	16.37	34.03	4.84	24.94	302	0.24
91	13.37	33.69	4.20	266	100	12.48	33.71	4.03	25.51	248	0.31
104	12.32	33.71	3.99	245	150	11.95	34.31	1.65	26.08	194	0.42
119	11.92	33.78	3.56	232	200	10.99	34.46	1.03	26.38	166	0.52
136	11.85	34.07	2.13	210	250	10.39	34.53	0.72	26.54	150	0.60
153	11.96	34.35	1.32	191	300	9.60	34.51	0.46	26.66	139	0.67
180	11.43	34.44	0.90	175	400	8.23	34.46	0.29	26.84	122	0.81
202	10.95	34.46	1.03	165	500	7.06	34.43	0.25	26.98	108	0.93
251	10.38	34.53	0.72	150							
327	9.17	34.50	0.34	133							
427	7.93	34.45	0.29	119							
556	6.41	34.42	0.25	100							

137.60 STRANGER; April 3, 1958; 2120 GCT; 24°19.5'N, 114°37.5'W; sounding, 2100 fm; wind, 320°, force 4; weather, cloudy; sea, high; wire angle, 20°.

0	20.30	34.58	5.22	356	0	20.30	34.58	5.22	24.38	356	0.00
28	19.96	34.55	5.20	349	10	20.18	34.57	5.21	24.40	353	0.04
47	19.92	34.52	5.13	350	20	20.03	34.56	5.20	24.44	350	0.07
69	19.34	34.47	5.37	340	30	19.96	34.54	5.20	24.45	349	0.10
82	18.31	34.16	5.47	338	50	19.90	34.52	5.13	24.44	350	0.18
91	17.92	34.09	5.27	333	75	19.07	34.41	5.42	24.57	338	0.26
99	16.86	34.05	4.87	312	100	16.65	34.04	4.73	24.88	308	0.34
107	15.44	33.97	3.67	287	150	12.63	34.44	0.94	26.05	197	0.47
116b)	13.98	33.93	3.32	260							
124	13.89	34.23	2.09	236							
132	13.70	34.42	1.42	218							
150	12.63	34.44	0.94	197							
213p	10.81	34.47	0.88								
314p	9.45	34.56	0.48								

a) Pretrip; depth too uncertain for interpolation.

b) The bathythermograph trace seems to indicate considerable mixing at two separate levels. Since these features may be transient, they have not been incorporated in the property curves used for determining the interpolated values.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

STRANGER; April 3, 1958; 1518, 1559 GCT; 23°59.5'N, 115°17.5'W; sounding, 2000+ fm; wind, 320°, force 4; weather, cloudy; sea, high; wire angle, 10°, 22°. 137.70

0	20.66	34.62	5.17	362	0	20.66	34.62	5.17	24.32	362	0.00
10	20.66	34.61	5.21	362	10	20.66	34.61	5.21	24.32	362	0.04
30	20.65	34.60	5.21	363	20	20.66	34.60	5.21	24.32	363	0.07
59	20.22	34.52	5.43	358	30	20.65	34.60	5.21	24.31	363	0.11
68	19.66	34.40	5.22	352	50	20.57	34.58	5.28	24.32	362	0.18
78	19.42	34.37	5.17	349	75	19.50	34.38	5.19	24.44	350	0.27
92	17.45	34.14	4.52	319	100	16.58	34.05	4.46	24.90	306	0.35
106	15.94	34.00	4.45	295	150	11.49	33.85	3.04	25.81	220	0.48
120	14.44	34.01	3.24	264	200	11.25	34.51	0.85	26.37	167	0.58
139	11.98	33.80	3.22	232	250	10.79	34.60	0.52	26.52	152	0.66
157	11.25	33.89	2.93	212	300	9.99	34.60	0.51	26.67	138	0.74
					400	8.40	34.48	0.27	26.83	123	0.88
171	10.61	34.04	2.29	191	500	7.41	34.47	0.22	26.96	110	1.00
193	11.17	34.45	1.14	169							
242	10.92	34.60	0.53	154							
319	9.66	34.60	0.51	134							
419	8.15	34.46	0.21	121							
553	7.04	34.48	0.25	105							

STRANGER; April 3, 1958; 1017 GCT; 23°39.5'N, 115°55'W; sounding, 2100 fm; wind, 220°, force 2; weather, cloudy; sea, moderate; wire angle, 15°. 137.80

0	21.06	34.67	4.86	368	0	21.06	34.67	4.86	24.25	368	0.00
10	21.04	34.67	4.87	368	10	21.04	34.67	4.87	24.25	368	0.04
29	21.02	34.70	5.12	365	20	21.03	34.69	5.07	24.26	367	0.07
53	20.10	34.49	5.15	357	30	21.02	34.70	5.12	24.28	365	0.11
63	19.63	34.42	5.27	351	50	20.83	34.62	5.13	24.32	361	0.18
72	19.13	34.34	5.33	344	75	19.00	34.33	5.35	24.52	342	0.27
82	18.84	34.25u	5.38		100	18.57	34.30	5.43	24.62	333	0.36
96	18.60	34.30	5.43	334	150	11.90	33.79	3.56	25.68	232	0.50
109	17.97	34.24	5.19	324	200	10.20	34.13	1.90	26.26	177	0.60
127	14.23	33.69	4.59	282	250	9.87	34.30	1.29	26.45	159	0.69
144	12.40	33.78a)	3.80	241	300	10.00	34.51	0.42	26.59	146	0.77
164	10.92	33.79	3.17	214	400	8.76	34.50	0.23	26.80	126	0.91
184	10.34	34.03	2.43	186	500	(7.48)	(34.48)	(0.14)	(26.96)	(110)	(1.04)
225	10.06	34.22	1.67	168							
289	10.10	34.50	0.51	148							
371	9.10	34.51	0.27	132							
481	7.77	34.49	0.17	115							

a) Loose bottle cap; value falls on property curve.

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
43.50-F	IV-1	1030	40°48.0'	124°57.0'	-	-	-	missing	missing	11.57	32.77	11.73	33.03
43.60-F	1	0130	40°28.0'	125°43.0'	1260	210°	9	rain	very high	11.89	32.92	11.98	32.90
47.60-F	III-31	2130	39°54.0'	125°18.0'	-	170°	8	rain	very high	11.80	-	9.93	33.48
60.52-B	IV-17	0450	37°53.5'	123°02.0'	45	340°	5	cloudy	high	12.87	32.74	10.32	33.57
60.65-B	17	1345	37°27.0'	123°59.5'	2000	280°	4	drizzle	very rough	13.61	32.03	12.86	32.84
67.50-B	16	1500	36°49.0'	122°04.5'	55	090°	3	clear	moderate	14.03	32.50	10.02	33.57
67.65-B	16	0245	36°19.0'	123°09.0'	1790	330°	6	cloudy	high	13.14	32.97	12.78	33.00
70.55-B	14	0130	36°03.0'	122°02.0'	750	300°	3	cloudy	moderate	13.75	32.86	12.11	33.40
70.65-B	14	0750	35°43.0'	122°45.0'	730	310°	4	overcast	moderate	14.11	33.02	13.36	33.07
70.75-B	14	1508	35°21.0'	123°31.5'	2000	310°	4	overcast	very rough	13.63	33.16	13.78	33.20a)
70.85-B	14	2201	34°59.0'	124°18.0'	2300	340°	5	overcast	high	14.12	33.22	13.90	33.26
73.51-F	9	1345	35°34.0'	121°20.5'	260	330°	4	partly cloudy	very rough	13.45	33.22	12.78	33.37
73.65-B	12	1310	35°10.0'	122°19.0'	2150	320°	2	clear	rough	13.94	33.19	13.66	33.21
73.75-B	12	0630	34°48.0'	123°01.5'	2100	320°	3	clear	rough	13.82	33.08	13.74	33.12
73.85-B	11	2350	34°28.5'	123°42.5'	2250	340°	4	clear	rough	14.20	33.22	14.01	33.25
77.50-F	9	2030	35°01.5'	120°52.5'	85	320°	5	clear	very rough	13.88	33.20	12.75	33.47
77.65-F	10	0505	34°32.0'	121°55.0'	2100	320°	6	partly cloudy	high	13.74	32.90	13.69	32.95

a) Loose bottle cap.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
77.75-F	IV-11	1030	34°14.0'	122°34.5'	2350	340°	6	cloudy	high	14.12	33.29	14.13	33.26
77.85-F	11	0535	33°53.5'	123°17.5'	2500	340°	6	clear	very high	14.42	33.21	14.38	33.19
80.65-B	10	1005	33°59.0'	121°30.0'	1850	300°	7	clear	very rough	13.79	33.40	13.74	33.37
80.75-B	10	1640	33°40.0'	122°15.0'	2200	350°	6	overcast	very rough	13.89	33.34	13.86	33.30
80.85-B	10	2315	33°18.0'	122°52.0'	2160	330°	6	overcast	high	15.16	33.40	15.10	33.40
83.40-P	1	2000	34°14.0'	119°22.0'	12	300°	6	rain	rough	14.89	33.28	-	-
83.65-P	4	1625	33°28.0'	121°07.5'	1900	270°	6	partly cloudy	very high	14.92	33.34	14.94	33.36
83.70-P	4	1930	33°16.5'	121°27.0'	2000	270°	6	partly cloudy	very high	14.92	33.38	14.92	33.39
83.75-P	4	2307	33°08.0'	121°43.0'	2150	300°	6	partly cloudy	very high	14.91	33.36	14.79	33.34
83.80-P	5	0229	32°59.0'	121°58.0'	2060	320°	6	partly cloudy	very high	14.97	33.38	14.94	33.35
87.50-P	6	0400	33°20.0'	119°39.5'	40	180°	4	partly cloudy	high	14.08	33.40	12.74	33.50
87.65-P	5	1825	32°50.0'	120°42.0'	2070	320°	4	partly cloudy	high	14.86	33.48	14.83	33.48
87.75-P	5	1130	32°30.0'	121°23.0'	2300	300°	4	partly cloudy	very high	15.32	33.53	15.33	33.54
87.80-P	5	0800	32°20.0'	121°44.0'	2160	290°	4	partly cloudy	very high	15.30	33.53	15.26	33.49
90.50-P	9	0400	32°45.0'	119°16.5'	200	300°	7	clear	very high	15.13	33.49	14.93	33.48
90.55-P	9	1440	32°32.0'	119°36.5'	450	320°	6	cloudy	very high	14.64	33.46	14.55	33.46
90.60-P	9	1915	32°26.0'	119°57.0'	600	310°	7	partly cloudy	very high	14.51	33.46	13.47	33.49
90.65-P	9	2315	32°15.5'	120°18.0'	2050	320°	6	cloudy	very high	14.79	33.50	14.72	33.46
90.70-P	10	0443	32°02.0'	120°45.0'	2000	320°	6	partly cloudy	very high	14.84	33.53	14.86	33.51

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

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TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
90.75-P	IV-10	0737	31°55.0'	120°58.0'	2240	320°	7	partly cloudy	very high	15.28	33.53	15.26	33.51
90.80-P	10	1130	31°45.0'	121°16.0'	1950	320°	6	partly cloudy	very high	15.51	33.57	15.48	33.57
90.85-P	10	1520	31°35.0'	121°39.5'	2150	340°	6	cloudy	very high	15.01	33.47	15.04	33.47
90.90-P	10	1905	31°27.0'	121°57.5'	2100	330°	6	cloudy	very high	14.92	33.37	14.88	33.44
90.100-P	11	0325	31°06.0'	122°33.0'	2200	330°	6	overcast	very high	16.74	33.75	16.72	33.72
90.110-P	11	1000	30°45.0'	123°08.5'	2200	330°	6	partly cloudy	high	16.98	33.86	17.00	33.83
90.120-P	11	1855	30°26.5'	123°58.0'	2300	330°	6	partly cloudy	high	16.80	33.76	16.75	33.81
93.35-P	19	0630	32°40.0'	117°52.0'	270	320°	3	missing	rough	16.56	33.48	12.98	33.52
93.45-P	19	1330	32°20.0'	118°33.0'	920	330°	4	overcast	very rough	16.34	33.58	12.68	33.49
93.55-P	19	2020	32°00.0'	119°13.0'	850	320°	4	cloudy	high	16.16	33.50	15.66	33.53
93.65-P	20	0548	31°41.5'	119°55.0'	2035	330°	5	clear	very high	16.37	33.55	16.26	33.56
93.75-P	20	1745	31°26.0'	120°38.0'	2000	320°	5	clear	high	16.06	33.49	15.83	33.53
97.35-P	22	0945	32°04.0'	117°28.5'	650	270°	3	clear	very rough	18.09	33.56	12.38	33.48
97.45-P	22	0247	31°43.0'	118°09.5'	750	330°	5	partly cloudy	very rough	17.58	33.56	14.16	33.49
97.55-P	21	2025	31°26.0'	118°50.0'	670	320°	5	clear	high	16.70	33.55	-	-
97.65-P	21	1430	31°06.0'	119°31.0'	1950	330°	5	clear	very rough	16.30	33.41	15.48	33.42
97.75-P	21	0720	30°46.0'	120°11.0'	2000	330°	4	clear	high	16.48	33.49	15.70	33.58
100.29-P	16	0813	31°42.0'	116°43.5'	95	calm		clear	moderate	16.78	33.48	12.54	33.55
100.45-P	15	2010	31°12.0'	117°48.0'	790	320°	4	clear	rough	16.40	33.55	15.93	33.51

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
100.55-P	IV-15	1405	30°57.0'	118°26.5'	1150	360°	4	clear	rough	16.79	33.61	16.36	33.61
100.65-P	15	0724	30°33.5'	119°04.5'	1750	360°	5	clear	rough	16.42	33.44	15.50	33.33
100.75-P	15	0127	30°10.5'	119°47.0'	1600	360°	5	clear	rough	16.26	-	15.28	33.34
100.85-P	14	1840	29°51.0'	120°26.5'	2080	360°	5	partly cloudy	rough	16.76	33.69	16.50	33.69
103.45-B	23	2308	30°35.0'	117°26.0'	900	320°	4	cloudy	high	17.32	33.60	15.58	33.49
103.55-B	24	0605	30°16.5'	118°04.0'	1500	310°	5	clear	high	16.90	33.55	16.86	33.65
103.65-B	24	1305	29°57.0'	118°43.5'	1900	340°	5	partly cloudy	high	17.46	33.73	17.47	33.78
103.75-B	24	2000	29°36.0'	119°25.0'	1850	320°	6	cloudy	high	16.89	33.62	16.82	33.64
103.85-B	25	0200	29°17.0'	120°05.0'	2000	310°	5	cloudy	very rough	17.19	33.67	17.06	33.68
107.45-B	26	1856	29°58.0'	117°03.5'	850	310°	5	partly cloudy	very rough	17.09	33.57	11.04	33.42
107.55-B	26	1103	29°40.5'	117°42.0'	1800	300°	5	partly cloudy	very rough	16.91	33.58	15.55	33.48
107.65-B	26	0415	29°21.5'	118°21.0'	1500	320°	4	partly cloudy	very rough	17.43	33.73	17.16	33.75
107.75-B	25	2100	29°02.0'	119°00.0'	1900	330°	5	partly cloudy	very rough	17.30	33.71	17.02	33.65
107.85-B	25	1416	28°42.0'	119°40.5'	2000	340°	5	cloudy	very rough	17.83	33.89	17.86	33.95
110.45-S	27	1215	29°25.5'	116°39.0'	500	360°	5	partly cloudy	very rough	17.06	33.66	16.82	33.65
110.55-S	27	0625	29°06.5'	117°19.0'	1900	360°	5	cloudy	very rough	16.88	33.58	14.76	33.50
110.65-S	27	0030	28°46.5'	117°57.0'	2000	360°	5	partly cloudy	very rough	17.34	33.68	17.24	33.70
110.75-S	26	1300	28°29.5'	118°42.5'	2200	340°	4	cloudy	very rough	17.82	33.89	17.81	33.87
110.85-S	26	0705	28°04.0'	119°16.0'	2200	340°	5	partly cloudy	very rough	18.16	34.01	18.07	33.98

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Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
113.45-S	IV-24	2000	28°48.0'	116°18.5'	1200	320°	4	partly cloudy	very rough	17.50	33.66	15.90	33.57
113.55-S	25	0130	28°32.0'	116°57.0'	2400	320°	4	partly cloudy	very rough	17.64	33.70	16.12	33.66
113.65-S	25	0920	28°08.5'	117°34.0'	2130	320°	4	partly cloudy	very rough	17.12	33.68	16.48	33.62
113.75-S	25	1445	28°47.0'	118°18.0'	2100	320°	5	cloudy	very rough	18.00	33.96	18.07	33.96
113.85-S	25	1950	27°31.0'	118°52.0'	2200	340°	5	partly cloudy	very rough	18.34	33.98	18.05	33.96
117.45-S	23	1655	28°13.0'	116°02.5'	2350	290°	3	cloudy	very rough	17.67	33.77	16.84	33.74
117.55-S	23	1045	27°51.0'	116°40.5'	1850	320°	4	cloudy	rough	17.42	33.68	16.92	33.82
117.65-S	23	0500	27°31.0'	117°19.0'	2000	340°	4	partly cloudy	very rough	18.16	33.89	17.56	33.96
117.75-S	22	2250	27°11.5'	117°58.5'	2300	320°	3	cloudy	very rough	18.44	34.02	17.60	33.97
117.85-S	22	1610	26°50.0'	118°35.0'	2300	320°	4	cloudy	rough	18.31	33.92	17.99	33.98
120.40-S	22	0755	27°56.5'	115°14.0'	20	320°	4	clear	rough	17.12	33.93	-	-
120.55-S	21	0630	27°21.0'	116°10.0'	2000	310°	2	fog	moderate	17.26	33.66	16.17	33.60
120.65-S	21	1530	26°58.0'	116°47.5'	2200	310°	3	fog	rough	17.36	33.68	15.96	33.67
120.75-S	21	2130	26°35.0'	117°30.5'	2100	270°	3	cloudy	rough	17.94	33.73	-	-
120.85-S	22	0310	26°21.0'	118°07.0'	2250	280°	3	cloudy	rough	18.62	33.90	17.78	33.97
123.45-S	10	2220	27°12.0'	115°08.0'	1800	320°	4	clear	rough	17.66	34.03a)	18.10	33.87
123.55-S	10	1735	26°54.0'	115°36.5'	2000	340°	4	clear	rough	17.22	33.88	14.76	33.86

a) Possible evaporation.

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
127.45-S	IV-9	0220	26°34.5'	114°46.0'	2000	300°	5	cloudy	high	17.39	33.92	17.10	33.89
127.55-S	9	0810	26°14.0'	115°23.0'	2000+	320°	5	clear	high	17.96	34.14	17.97	-
130.45-S	7	0955	26°07.0'	114°31.5'	2000	320°	3	cloudy	very rough	17.10	33.91	17.12	33.88
130.55-S	7	0415	27°48.0'	115°08.5'	2000+	320°	3	partly cloudy	very rough	18.32	34.23	18.27	34.23
133.45-S	5	1340	25°21.0'	114°14.0'	2000	320°	5	partly cloudy	high	18.68	34.39	18.66	34.39
133.55-S	5	1915	25°03.0'	114°53.5'	2000	320°	6	clear	high	20.02	34.63	19.48	34.54
137.45-S	4	0530	24°46.0'	113°44.0'	1890	320°	4	clear	very rough	18.86	34.31	18.28	34.40
137.55-S	4	0020	24°28.0'	114°18.5'	2000	310°	6	partly cloudy	high	19.54	34.61	17.40	33.95

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
60.55	STRANGER; May 16, 1958; 2223 GCT; 37°46.5'N, 123°15'W; sounding, 65 fm; wind, calm; weather, partly cloudy; sea, slight; wire angle, 00°.										
0	13.81	32.86	6.75	335	0	13.81	32.86	6.75	24.60	335	0.00
10	11.20	33.19	5.74	263	10	11.20	33.19	5.74	25.36	263	0.03
29	10.08	33.42	4.52	228	20	10.34	33.33	4.90	25.62	238	0.05
49	9.42	33.62	3.74	202	30	10.06	33.42	4.48	25.73	227	0.08
78	8.78	33.86	2.58	175	50	9.38	33.63	3.72	26.00	202	0.12
96	8.71	33.89	2.18	172	75	8.80	33.84	2.70	26.26	177	0.17
					100	(8.68)	(33.89)	(2.06)	(26.32)	(171)	(0.21)
60.90	STRANGER; May 17, 1958; 1353, 1410 GCT; 36°38.5'N, 125°32'W; sounding, 2500 fm; wind, 170°, force 3; weather, cloudy; sea, moderate; wire angle, 04°, 04°.										
0	15.04	33.23	5.80	333	0	15.04	33.23	5.80	24.62	333	0.00
10	14.68	33.22	-	326	10	14.68	33.22		24.69	326	0.03
29	14.45	33.24	5.97	320	20	14.53	33.23	5.96	24.74	322	0.06
63a)	12.91	33.06	6.15	303							
73a)	12.59	33.03	6.12	299							
82a)	12.78	33.08	6.03	299							
96a)	12.48	33.15	5.84	289							
110a)	10.33	33.19	5.41	248							
129a)	9.06	33.32	5.00	219							
194a)	8.31	33.87	3.74	167							
241a)	8.11	34.04	2.35	150							
316a)	6.63	34.04	1.98	132							
410a)	6.30	34.16	0.91	119							
535a)	5.74	34.27	0.43	104							
54a)	13.73	33.17	5.98	310							
70.55	STRANGER; May 13, 1958; 1436 GCT; 36°00'N, 122°00'W; sounding, 800 fm; wind, 360°, force 6; weather, partly cloudy; sea, high; wire angle, 06°.										
0	12.82	33.25	6.36	288	0	12.82	33.25	6.36	25.09	288	0.00
10	12.80	33.22	-	289	10	12.80	33.22		25.08	289	0.03
29	12.41	33.29	6.26	277	20	12.63	33.26	6.32	25.14	284	0.06
44	9.70	33.67	4.27	203	30	12.38	33.29	6.23	25.21	277	0.08
53	9.44	33.72	3.75	196	50	9.57	33.71	4.00	26.04	198	0.13
63	9.08	33.80	3.25	184	75	9.00	33.83	3.12	26.23	180	0.18
72	9.06	33.81	3.14	183	100	8.53	33.93	2.76	26.38	166	0.22
91	8.56	33.88	3.02	170	150	8.00	33.97	2.52	26.48	156	0.30
105	8.48	33.95	2.65	164	200	7.39	33.98	2.22	26.58	146	0.38
119	8.14	33.94	2.83	160	250	6.77	34.07	1.45	26.74	131	0.45
143	8.01	33.96	2.54	156	300	6.45	34.12	0.98	26.83	123	0.51
171	7.75	33.99	2.20	150	400	5.98	34.20	0.52	26.95	112	0.64
208	7.29	33.98	2.22	145	500	5.50	34.25	0.40	27.05	102	0.75
260	6.70	34.08	1.39	129							
339	6.28	34.16	0.77	119							
439	5.78	34.22	0.45	108							
578	5.14	34.30	0.36	95							

a) Pretrip; depth too uncertain for interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

70.90

STRANGER; May 12, 1958; 2115 GCT; 34°53'N, 124°27.5'W; sounding, 2400 fm; wind, 350°, force 4; weather, partly cloudy; sea, very rough; wire angle, 16°.

0	14.42	32.95	5.99	340	0	14.42	32.95	5.99	24.55	340	0.00
10	14.38	32.99	-	337	10	14.38	32.99		24.58	337	0.03
28	13.94	33.03	6.06	325	20	14.18	33.02	6.02	24.65	330	0.07
42	13.58	33.01	6.06	320	30	13.88	33.03	6.06	24.71	324	0.10
51	13.48	33.15	5.92	308	50	13.52	33.14	5.99	24.87	309	0.16
60	12.18	33.20	5.70	280	75	11.40	33.33	5.32	25.42	256	0.23
69	11.78	33.27	5.52	267	100	10.36	33.51	4.16	25.76	225	0.30
87	10.64	33.42	4.88	237	150	9.17	33.76	3.40	26.15	188	0.40
100	10.36	33.51	4.16	225	200	8.53	34.00	2.27	26.43	161	0.49
114	9.82	33.56	4.04	213	250	7.68	34.06	2.02	26.60	145	0.56
133	9.20	33.69	3.60	194	300	7.21	34.09	1.73	26.69	136	0.64
162	9.09	33.89	2.85	177	400	6.28	34.17	1.03	26.88	118	0.77
198	8.58	33.99	2.28	162	500	5.70	34.22	0.66	27.00	107	0.89
247	7.74	34.14a)	2.04								
324	6.99	34.11	1.56	131							
419	6.08	34.18	0.86	115							
556	5.38	34.26	0.47	100							

77.55

STRANGER; May 11, 1958; 1020 GCT; 34°54'N, 121°11'W; sounding, 320 fm; wind, 090°, force 1; weather, cloudy; sea, smooth; wire angle, 00°.

0	12.98	33.29	7.04	288	0	12.98	33.29	7.04	25.10	288	0.00
10	12.94	33.31	-	285	10	12.94	33.31		25.12	285	0.03
29	11.84	33.54	7.13	249	20	12.27	33.47	7.12	25.37	262	0.06
39	11.66	33.56	6.72	244	30	11.83	33.54	7.12	25.51	248	0.08
49	11.32	33.57	6.09	237	50	11.28	33.57	6.03	25.63	237	0.13
58	10.34	33.57	4.66	220	75	10.23	33.61	4.44	25.85	216	0.19
68	10.28	33.58	4.59	219	100	9.46	33.75	3.32	26.09	193	0.24
82	10.19	33.68	4.31	210	150	8.62	34.00	2.41	26.42	162	0.33
96	9.48	33.73	3.50	195	200	8.17	34.12	1.67	26.58	146	0.41
109	9.41	33.85	2.73	185	250	7.61	34.16	1.28	26.69	136	0.48
133	9.14	33.96	2.47	173	300	7.23	34.21	1.04	26.79	127	0.55
160	8.36	34.02	2.32	156	400	6.51	34.24	0.62	26.91	115	0.67
193	8.24	34.11	1.78	148	500	(5.95)	(34.28)	(0.51)	(27.01)	(106)	(0.79)
240	7.70	34.14	1.37	138							
287	7.36	34.20	1.10	130							
385	6.61	34.23	0.67	117							
480	6.03	34.27	0.51	107							

77.60

STRANGER; May 11, 1958; 0739 GCT; 34°43'N, 122°33'W; sounding, 420 fm; wind, 090°, force 2; weather, cloudy; sea, slight; wire angle, 04°.

0	13.91	33.33	6.67	302	0	13.91	33.33	6.67	24.94	302	0.00
10	13.72	33.31	-	300	10	13.72	33.31		24.96	300	0.03
29	13.06	33.29	6.37	289	20	13.45	33.29	6.53	25.01	296	0.06
39	12.29	33.35	5.79	271	30	13.00	33.29	6.33	25.09	288	0.09
49	11.83	33.40	5.53	259	50	11.80	33.40	5.52	25.41	258	0.14
58	11.26	33.48	4.93	243	75	10.98	33.53	4.64	25.66	234	0.20
68	11.16	33.50	4.84	240	100	10.19	33.81	3.33	26.02	200	0.26
82	10.80	33.58	4.39	228	150	9.18	34.01	2.37	26.34	170	0.35
96	10.30	33.80	3.44	203	200	8.66	34.15	1.60	26.53	152	0.44
110	9.90	33.84	3.18	193	250	8.20	34.20	1.42	26.64	141	0.51
132	9.37	33.95	2.47	177	300	7.80	34.21	1.30	26.71	134	0.58
161	9.06	34.06	2.29	164	400	6.59	34.31	0.87	26.96	111	0.71
193	8.77	34.13	1.68	154	500	5.95	34.30	0.59	27.03	104	0.82
239	8.32	34.20	1.45	143							
313	7.65	34.21	1.27	133							
407	6.55	34.31	0.82	110							
532	5.78	34.29	0.52	102							

a) Broken bottle cap; value does not fall on property curve.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_3^{-5}	Z	T	S	O_2	σ_t	δT_3^{-5}	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m
80.51	STRANGER; May 9, 1958; 1150 GCT; 34°26.5'N, 120°31.5'W; sounding, 45 fm; wind, 190°, force 3; weather, cloudy; sea, slight; wire angle, 00°.										
0	13.16	33.63	5.56	266	0	13.16	33.63	5.56	25.33	266	0.00
20	12.09	33.67	4.42	244	10	12.66	33.65	4.92	25.44	255	0.03
39	10.94	33.68	4.00	222	20	12.09	33.67	4.42	25.56	244	0.05
64	10.26	33.73	3.41	208	30	11.36	33.68	4.14	25.70	230	0.07
					50	10.58	33.70	3.72	25.86	215	0.12
80.55	STRANGER; May 9, 1958; 1440 GCT; 34°19'N, 120°48.5'W; sounding, 450 fm; wind, direction missing, force 1; weather, overcast; sea, slight; wire angle, 03°.										
0	13.67	33.54	6.54	283	0	13.67	33.54	6.54	25.15	283	0.00
10	13.65	33.53	-	283	10	13.65	33.53		25.15	283	0.03
29	12.98	33.56	6.00	268	20	13.46	33.53	6.33	25.18	279	0.06
39	11.90	33.53	5.57	250	30	12.88	33.56	5.96	25.32	266	0.08
48	10.90	33.48	4.94	237	50	10.74	33.47	4.84	25.66	234	0.13
58	10.18	33.47	4.50	225	75	9.83	33.66	3.70	25.95	206	0.19
67	10.02	33.60	3.91	214	100	9.37	33.81	2.87	26.16	187	0.24
81	9.66	33.71	3.51	199	150	8.63	33.99	2.37	26.41	163	0.33
94	9.40	33.80	2.89	188	200	7.77	34.07	1.86	26.60	145	0.40
108	9.27	33.82	2.85	185	250	7.58	34.15	1.54	26.69	136	0.48
131	8.91	33.95	2.45	170	300	7.37	34.20	1.23	26.77	129	0.54
159	8.52	34.00	2.36	160	400	6.46	34.23	0.62	26.91	116	0.67
191	7.82	34.05	1.98	147	500	5.78	34.26	0.53	27.02	104	0.78
238	7.60	34.13	1.57	138							
313	7.26	34.21	1.11	127							
407	6.40	34.23	0.60	115							
531	5.60	34.28	0.52	102							
80.60	STRANGER; May 9, 1958; 1741, 1815 GCT; 34°10'N, 121°09.5'W; sounding, 1600 fm; wind, 200°, force 4; weather, overcast; sea, moderate; wire angle, 15°, 18°.										
0	13.90	33.30	6.56	305	0	13.90	33.30	6.56	24.92	305	0.00
9	13.89	33.32	-	304	10	13.88	33.32		24.94	303	0.03
28	12.84	33.47	6.25	272	20	13.54	33.38	6.46	25.06	291	0.06
37	11.91	33.56	5.32	248	30	12.44	33.51	5.90	25.37	262	0.09
49p	11.60	33.58	5.32	241	50	11.59	33.59	5.32	25.59	241	0.14
59p	11.56	33.64	4.94	236	75	9.69	33.66	3.77	25.98	203	0.19
					100	9.15	33.74	3.20	26.13	190	0.24
71	10.15	33.67	3.80	210	150	9.00	34.00	2.13	26.35	168	0.33
85	9.26	33.65	3.73	198	200	8.25	34.12	1.65	26.56	148	0.41
98	9.14	33.69	3.35	193	250	7.98	34.15	1.40	26.63	142	0.49
120	9.22	33.86	2.60	182	300	7.57	34.17	1.16	26.71	134	0.56
147	9.06	33.98	2.22	170	400	6.60	34.23	0.77	26.89	117	0.69
176	8.50	34.07	1.86	155	500	5.75	34.27	0.49	27.04	103	0.80
222	8.16	34.14	1.55	145							
296	7.61	34.17	1.17	135							
386	6.71	34.22	0.82	119							
507	5.66	34.28	0.48	102							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

80.70

STRANGER; May 9-10, 1958; 2341, 0006, 0032 GCT; 33°48'N, 121°50'W; sounding, 2000 fm; wind, 160°, force 4; weather, cloudy; sea, moderate; wire angle, 04°, 03°, 05°.

0	14.22	33.00	6.04	333	0	14.22	33.00	6.04	24.62	333	0.00
10	14.14	33.13	-	322	10	14.14	33.13		24.74	322	0.03
29	13.90	33.14	6.15	316	20	14.03	33.14	6.13	24.77	319	0.06
43	13.80	33.13	6.03	314	30	13.86	33.14	6.15	24.80	316	0.10
53	13.70	33.16	6.02	311	50	13.71	33.15	6.02	24.84	312	0.16
63	13.54	33.24	6.06	302	75	13.34	33.29	6.02	25.03	294	0.24
77	13.27	33.30	5.98	292	100	12.50	33.37	5.37	25.25	273	0.31
					150	8.87	33.69	4.01	26.13	189	0.42
90	12.96	33.35	5.52	283	200	8.46	33.97	2.26	26.42	162	0.51
104	12.20	33.37	6.03u	268	250	8.22	34.13	1.57	26.58	146	0.59
					300	7.70	34.19	1.29	26.70	135	0.66
114	10.39	33.39	4.83	234	400	6.60	34.22	0.77	26.89	118	0.79
137	9.06	33.57	4.27	201	500	6.01	34.24	0.51	26.98	109	0.91
165	8.68	33.81	3.28	177							
202	8.45	33.98	2.24	161							
253	8.20	34.14	1.50	146							
332	7.26	34.20	1.15	128							
431	6.39	34.23	0.64	114							
570	5.50	34.27	0.40	101							

80.80

STRANGER; May 10, 1958; 0618 GCT; 33°28'N, 122°35.5'W; sounding, 2250 fm; wind, 140°, force 4; weather, partly cloudy; sea, rough; wire angle, 14°.

0	14.50	33.16	5.97	327	0	14.50	33.16	5.97	24.68	327	0.00
10	14.48	33.22	-	323	10	14.48	33.22		24.73	323	0.03
28	14.44	33.17	5.93	325	20	14.45	33.21	5.94	24.73	323	0.06
43	14.40	33.17	6.00	324	30	14.44	33.17	5.93	24.71	325	0.10
52	14.24	33.22	6.05	317	50	14.27	33.20	6.05	24.77	319	0.16
62	14.12	33.35	5.84	305	75	13.88	33.35	5.80	24.96	301	0.24
76	13.86	33.35	5.80	301	100	10.82	33.36	4.73	25.56	244	0.31
89	11.34	33.35	4.99	254	150	9.02	33.76	3.40	26.18	185	0.42
103	10.66	33.37	4.65	241	200	8.71	33.99	2.22	26.40	164	0.50
116	9.76	33.49	4.30	217	250	8.38	34.09	1.73	26.52	152	0.58
139	9.18	33.65	3.71	196	300	7.98	34.18	1.44	26.66	139	0.66
165	8.86	33.83	2.91	178	400	6.62	34.20	0.78	26.86	120	0.79
201	8.71	33.99	2.21	164	500	5.90	34.23	0.58	26.98	109	0.92
251	8.38	34.09	1.73	152							
328	7.65	34.20	1.27	134							
425	6.38	34.20	0.68	116							
561	5.48	34.27	0.55	101							

80.90

STRANGER; May 10, 1958; 1150 GCT; 33°09.5'N, 123°19.5'W; sounding, 2350 fm; wind, 150°, force 4; weather, drizzle; sea, rough; wire angle, 18°.

0	14.65	33.19	5.97	328	0	14.65	33.19	5.97	24.67	328	0.00
10	14.64	33.22	-	326	10	14.64	33.22		24.69	326	0.03
28	14.59	33.21	5.94	325	20	14.62	33.22	5.94	24.70	325	0.06
56	14.49	33.22	5.97	322	30	14.58	33.21	5.95	24.70	325	0.10
64	14.46	33.26	5.96	318	50	14.54	33.22	5.96	24.72	323	0.16
74	14.32	33.25	6.00	316	75	14.30	33.25	5.99	24.80	316	0.24
87	14.25	33.35	5.94	308	100	13.34	33.34	5.56	25.07	290	0.32
100	13.34	33.34	5.56	290	150	9.50	33.58	3.87	25.94	207	0.44
113	11.26	33.44	4.57	246	200	8.84	34.00	2.28	26.38	165	0.53
131	10.03	33.54	4.08	218	250	8.03	34.04	2.05	26.55	150	0.62
149	9.52	33.58	3.90	207	300	7.35	34.08	1.59	26.67	138	0.69
176	9.35	33.87	2.75	183	400	6.42	34.14	0.99	26.84	122	0.82
198	8.86	34.00	2.30	166	500	5.85	34.20	0.62	26.96	110	0.95
248	8.02	34.04	2.10	150							
325	7.02	34.10	1.40	133							
426	6.24	34.16	0.88	118							
556	5.48	34.26	0.38	101							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

90.45 PAOLINA-T; May 4, 1958; 1500, 1544 GCT; 32°55.'N, 118°56'W; sounding, 940 fm; wind, 270°, force 3; weather, cloudy; sea, moderate; wire angle, 09°, 10°.

0	14.62	33.57	6.05	299	0	14.62	33.57	6.05	24.97	299	0.00
10	14.60	33.55	6.18	300	10	14.60	33.55	6.18	24.96	300	0.03
29	13.34	33.77r	5.94		20	13.75	33.54	6.03	25.13	284	0.06
44	12.68	33.53	5.71	264	30	13.33	33.54	5.93	25.22	276	0.09
53	11.72	33.55	4.97	245	50	11.85	33.55	5.10	25.51	248	0.14
63	11.26	33.53	4.55	239	75	10.45	33.60	4.31	25.80	221	0.20
73	10.92	33.56	4.44	231	100	9.78	33.67	3.70	25.98	204	0.25
91	9.90	33.66	3.90	207	150	9.08	34.02	2.18	26.36	168	0.34
105	9.71	33.68	3.62	202	200	8.54	34.17	1.66	26.56	148	0.42
119	9.38	33.79	3.32	189	250	8.06	34.23	1.31	26.68	137	0.50
142	9.15	33.98	2.41	172	300	7.73	34.26	1.03	26.76	130	0.57
170	8.93	34.08	1.98	161	400	6.82	34.29	0.48	26.91	115	0.69
206	8.45	34.18	1.61	146	500	6.19	34.34	0.36	27.03	104	0.81
259	7.99	34.24	1.24	135							
337	7.38	34.27	0.79	124							
438	6.55	34.31	0.33	110							
578	5.68	34.38	0.53	95							

100.70 PAOLINA-T; May 10, 1958; 1007 GCT; 30°23'N, 119°29'W; sounding, 2100 fm; wind, 140°, force 3; weather, partly cloudy; sea, moderate; wire angle, 00°.

0	16.60	33.48	5.95	348	0	16.60	33.48	5.95	24.46	348	0.00
10	16.30	33.49	5.94	341	10	16.30	33.49	5.94	24.54	341	0.03
30	16.23	33.46	5.74	342	20	16.25	33.47	5.76	24.54	341	0.07
55	15.68	33.39a)	5.74	335	30	16.23	33.46	5.74	24.53	342	0.10
66	15.22	33.32	5.79	330	50	16.20	33.45	5.74	24.54	341	0.17
74	14.82	33.32	5.93	322	75	14.78	33.32	5.93	24.75	321	0.25
84	14.02	33.36	5.57	303	100	11.90	33.37	6.00	25.36	262	0.33
100	11.90	33.37	6.00	262	150	9.34	33.40	3.91	25.82	218	0.45
114	11.00	33.38	5.88	246	200	8.50	33.85	2.79	26.32	171	0.55
133	9.86	33.39	4.86	226	250	7.65	33.94	2.17	26.51	153	0.63
151	9.33	33.40	3.90	217	300	7.08	33.99	1.65	26.64	141	0.71
173	8.86	33.78	3.21	182	400	6.22	34.11	0.82	26.85	121	0.84
197	8.53	33.84	2.83	172	500	5.82	34.23	0.53	26.99	108	0.96
242	7.78	33.92	2.27	156							
317	6.92	34.01b)	1.46	138							
412	6.16	34.15b)	0.79	117							
540	5.70	34.27	0.41	103							

107.60 PAOLINA-T; May 14, 1958; 0659 GCT; 29°32'N, 118°01'W; sounding, 1820 fm; wind, 270°, force 7; weather, cloudy; sea, high; wire angle, 25°.

0	16.80	33.49	5.84	352	0	16.80	33.49	5.84	24.42	352	0.00
9	16.83	33.49c)	5.91	352	10	16.83	33.49	5.91	24.42	352	0.04
27	16.80	33.48	5.88	352	20	16.83	33.49	5.90	24.42	352	0.07
55	16.44	33.58	5.98	337	30	16.78	33.48	5.88	24.42	352	0.10
62	15.87	33.49	5.88	331	50	16.42	33.58	5.98	24.57	338	0.17
71	15.23	33.51d)	5.95		75	15.03	33.44	5.94	24.79	317	0.26
83	14.76	33.43	5.90	312	100	12.75	33.43	5.53	25.25	273	0.33
96	13.33	33.45	5.65	282	150	9.92	33.50	4.75	25.82	218	0.45
109	11.79	33.37	-	260							
126	10.86	33.46	4.98	237							
144	10.15	33.48	4.83	224							
169	9.24	33.73	3.70	192							

a) Broken bottle cap; value falls on property curve.
b) Salinity samples at 317 and 412 meters appear to have been reversed; they are assumed to be listed in correct order.
c) Possible evaporation; value falls on property curve.
d) Loose bottle cap; value does not fall on property curve.

OBSERVED					INTERPOLATED				COMPUTED			
Z m	T °C	S ‰	O_2 ml/L	$\delta_{-5}T_3$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{-5}T_3$ 10^{-5} cm/g	ΔD dyn. m	

BLACK DOUGLAS; May 15, 1958; 1141 GCT; 27°33'N, 115°52.5'W; sounding, 2100 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 14°. 120.50

0	17.85	33.78	5.30	354	0	17.85	33.78	5.30	24.40	354	0.00	
10	17.86	33.77	5.00	355	10	17.86	33.77	5.00	24.38	355	0.04	
29	16.78	33.68	4.94	338	20	17.83	33.77	4.98	24.39	354	0.07	
43	15.62	33.68	5.05	312	30	16.68	33.68	4.95	24.60	335	0.10	
52	14.22	33.86	3.56	270	50	14.97	33.82	3.80	25.08	289	0.17	
62	12.74	33.78	3.11	247	75	11.72	33.84	3.02	25.76	224	0.23	
72	11.86	33.82	3.05	228	100	10.90	34.04	2.27	26.05	197	0.28	
88	11.16	33.96	2.31	205	150	10.45	34.30	1.32	26.35	168	0.38	
101	10.86	34.03	2.27	196	200	10.26	34.40	1.06	26.45	159	0.46	
114	10.42	34.06	2.22	186	250	8.95	34.32	1.20	26.61	144	0.54	
135	10.48	34.29	1.56	170	300	7.92	34.21	1.32	26.69	136	0.61	
161	10.38	34.31	1.28	166	400	7.01	34.33	1.08	26.91	115	0.74	
195	10.33	34.40	1.07	159	500	6.52	34.39	0.27	27.02	105	0.85	
242	9.16	34.34	1.17	145								
317	7.58	34.18	1.33	134								
416	6.97	34.35	0.40	113								
546	6.10	34.42	0.25	97								

BLACK DOUGLAS; May 16, 1958; 0515 GCT; 26°32.5'N, 117°48.5'W; sounding, 2000 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 06°. 120.80

0	18.60	33.86	5.82	366	0	18.60	33.86	5.82	24.27	366	0.00	
10	18.63	33.87	5.79	366	10	18.63	33.87	5.79	24.27	366	0.04	
29	18.46	33.85	5.81	364	20	18.56	33.86	5.80	24.28	365	0.07	
43	18.10	33.82	5.78	358	30	18.45	33.85	5.81	24.30	363	0.11	
53	17.50	33.89a)	5.96		50	17.70	33.82	5.87	24.46	348	0.18	
62	17.26	33.83	5.93	337	75	17.10	33.83	5.98	24.62	333	0.26	
72	17.16	33.83	5.98	335	100	16.10	33.78	5.80	24.82	314	0.35	
89	16.88	33.84	5.90	328	150	11.20	33.61	3.72	25.68	232	0.48	
102	15.98	33.78	5.80	312	200	10.21	34.06	(2.52)	26.20	182	0.59	
115	15.18	33.76	5.71	297	250	9.54	34.29	(2.10)	26.49	155	0.68	
136	11.79	33.53	4.96	248	300	8.95	34.32	(1.50)	26.61	144	0.76	
162	11.78	33.92	3.05	219	400	7.64	34.35	0.62	26.84	122	0.89	
198	10.22	34.05	2.52	184	500	6.64	34.36	0.40	26.98	108	1.02	
255	9.54	34.30	-	154								
332	8.54	34.32	1.03	137								
428	7.30	34.36	0.51	117								
565	5.96	34.34	0.33	101								

BLACK DOUGLAS; May 9, 1958; 1632 GCT; 25°00'N, 113°23.5'W; sounding, 1500 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 16°. 137.40

0	18.16	33.87	5.96	355	0	18.16	33.87	5.96	24.39	355	0.00	
10	18.09	33.87	5.64	353	10	18.09	33.87	5.64	24.41	353	0.04	
28	18.09	33.87	5.72	353	20	18.09	33.87	5.68	24.41	353	0.07	
42	17.16	33.85	5.82	333	30	18.08	33.87	5.73	24.41	353	0.10	
51	16.58	33.84	5.85	321	50	16.63	33.84	5.84	24.74	322	0.17	
60	15.96	33.78	5.75	311	75	15.40	33.92	4.94	25.07	290	0.25	
70	15.82	33.93	5.33	298	100	13.13	34.09	3.90	25.68	232	0.32	
85	13.88	33.90	3.89	261	150	11.80	34.48	0.83	26.25	178	0.42	
97	13.11	33.96	3.00	241	200	11.10	34.60	0.38	26.46	158	0.50	
109	11.92	33.96	2.90	219	250	10.28	34.59	0.30	26.61	144	0.58	
128	12.35	34.34	1.17	199	300	9.48	34.55	0.29	26.71	134	0.66	
152	11.72	34.48	0.82	177	400	8.10	34.46	0.24	26.86	120	0.79	
186	11.29	34.58	0.46	162	500	6.97	34.44	0.22	27.00	107	0.90	
285p	9.69	34.56	0.29	137								
382p	8.31	34.47	0.25	123								
519p	6.98	34.43	0.22	104								

a) Broken bottle cap; value does not fall on property curve.

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TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
60.52-S	V-16	2055	37°53.0'	123°01.0'	42	calm		haze	slight	10.94	33.48	8.90	33.85
60.60-S	17	0045	37°36.5'	123°35.0'	1700	300°	4	partly cloudy	moderate	13.14	32.77	9.52	33.54
60.70-S	17	0500	37°17.5'	124°16.0'	2200	240°	1	partly cloudy	moderate	13.73	32.78	12.01	32.97
60.80-S	17	0915	36°57.5'	124°56.0'	2360	180°	2	partly cloudy	slight	14.13	33.03	13.75	33.02
63.52-S	15	1130	37°20.0'	122°39.5'	50	320°	3	clear	slight	11.52	33.01	9.33	33.64
63.55-S	15	0930	37°12.5'	122°50.0'	200	320°	3	clear	slight	12.44	32.83	9.23	33.60
63.60-S	15	0645	37°01.0'	123°10.5'	1470	320°	3	clear	slight	12.07	33.04	10.94	33.21
63.70-S	15	0040	36°40.0'	123°55.0'	2125	340°	4	clear	rough	13.57	32.86	12.96	32.86
63.80-S	14	1835	36°19.5'	124°38.5'	2300	340°	3	partly cloudy	rough	13.84	33.03	13.52	33.06
63.90-S	17	1840	36°06.5'	125°13.0'	2500	180°	3	cloudy	moderate	14.37	32.91	13.05	32.94
67.50-S	13	2153	36°47.5'	122°04.0'	177	360°	5	partly cloudy	very rough	12.32	33.51	9.18	33.69
67.55-S	14	0030	36°35.5'	122°26.5'	1600	330°	5	clear	high	13.75	32.92	11.16	33.22
67.60-S	14	0250	36°23.0'	122°48.5'	1600	340°	5	partly cloudy	high	13.94	32.83	12.15	33.03
67.70-S	14	0730	36°04.0'	123°30.0'	2000	320°	5	partly cloudy	high	14.02	32.95	10.90	33.26
67.80-S	14	1301	35°43.0'	124°15.0'	2200	330°	4	cloudy	rough	14.28	32.86	13.92	33.03
67.90-S	17	2310	35°34.0'	124°50.0'	2450	180°	3	cloudy	moderate	14.11	32.87	13.54	33.02
70.52-S	13	1700	36°09.0'	121°50.0'	420	320°	3	clear	rough	12.32	33.31	9.83	33.62
70.60-S	13	1120	35°50.5'	122°22.0'	1900	340°	6	partly cloudy	high	12.70	33.35	10.79	33.49
70.70-S	13	0700	35°31.0'	123°05.0'	2100	350°	5	clear	high	13.81	33.02	12.63	33.04

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
70.80-S	V-13	0200	35°12.5'	123°47.0'	2250	360°	4	partly cloudy	high	14.14	32.90	12.52	32.97
73.51-S	11	2130	35°36.0'	121°20.0'	155	270°	3	partly cloudy	moderate	11.30	33.51	10.00	33.69
73.55-S	11	2340	35°27.5'	121°37.5'	600	270°	3	partly cloudy	slight	13.97	32.86	11.48	33.30
73.60-S	12	0210	35°17.0'	121°58.5'	1550	320°	4	partly cloudy	moderate	14.04	33.12	11.88	32.92
73.70-S	12	0700	34°56.5'	122°40.0'	2250	320°	4	rain	rough	14.38	33.09	11.90	33.25
73.80-S	12	1120	34°35.0'	123°24.5'	2300	320°	5	overcast	very rough	14.76	33.20	14.50	33.19
73.90-S	12	1550	34°14.0'	124°09.5'	2450	360°	5	overcast	high	14.96	33.24	14.54	33.22
77.50-S	11	1310	34°05.0'	120°52.0'	80	120°	2	cloudy	slight	12.67	33.36	10.62	33.60
77.70-S	11	0225	34°23.0'	122°16.0'	2200	120°	3	cloudy	moderate	14.16	33.00	11.98	33.24
77.80-S	10	2145	34°04.5'	122°56.0'	2350	130°	3	cloudy	rough	14.96	33.22	14.77	33.24
77.90-S	10	1700	33°44.5'	123°38.5'	2300	140°	4	cloudy	very rough	15.04	33.26	14.98	33.26
82.47-S	9	0830	34°15.0'	119°58.0'	310	calm		cloudy	moderate	11.98	33.66	9.72	33.89
83.40-S	9	0020	34°14.0'	119°21.5'	10	270°	4	cloudy	slight	15.08	33.58	-	-
83.43-S	9	0540	34°08.0'	119°34.0'	131	270°	1	cloudy	slight	15.01	33.51	11.52	33.62
83.51-S	8	1855	33°51.5'	120°08.0'	174	310°	4	overcast	rough	14.67	33.60	9.66	33.84
83.55-S	8	1635	33°44.0'	120°25.5'	532	300°	3	overcast	rough	14.11	33.58	11.05	33.63
83.60-S	8	1350	33°31.0'	120°46.0'	1000	320°	4	overcast	rough	13.61	33.40	12.52	33.46
83.65-S	8	1050	33°22.5'	121°05.0'	1900	320°	4	overcast	rough	13.96	33.23	13.94	33.33
83.70-S	8	0810	33°13.0'	121°25.0'	2000	320°	3	overcast	rough	14.10	33.21	14.04	33.22

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
83.75-S	V-8	0530	33°03.5'	122°45.5'	2400	320°	5	overcast	high	14.82	33.30	14.91	33.30
83.80-S	8	0245	32°53.5'	122°06.0'	2240	320°	5	cloudy	high	14.81	33.20	15.22	-
83.85-S	8	0000	32°44.0'	122°27.5'	2000	320°	5	overcast	high	14.88	33.21	14.87	33.24
83.90-S	7	2145	32°35.0'	122°45.0'	2000	320°	5	overcast	high	14.86	33.12	14.52	33.19
87.35-S	6	0830	33°50.0'	118°37.5'	420	180°	2	cloudy	slight	15.98	33.46	11.16	33.62
87.40-S	6	1130	33°39.0'	118°58.0'	640	-	1	cloudy	slight	15.92	33.49	-	-
87.45-S	6	1420	33°30.0'	119°19.0'	900	320°	2	overcast	very rough	14.59	33.55	9.70	33.73
87.50-S	6	1810	33°20.0'	119°40.0'	40	280°	4	overcast	very rough	14.30	33.55	9.81	33.69
87.55-S	6	2035	33°10.0'	120°00.5'	500	270°	4	overcast	rough	13.34	33.55	12.30	33.57
87.60-S	7	0015	33°00.0'	120°21.5'	330	320°	5	overcast	very high	14.12	33.58	12.28	33.57
87.65-S	7	0237	32°50.0'	120°41.0'	2000	320°	6	cloudy	high	14.46	33.28	14.10	33.37
87.70-S	7	0530	32°39.0'	121°02.0'	2100	300°	5	cloudy	high	14.70	33.20	14.80	33.23
87.75-S	7	0750	32°29.0'	121°22.0'	2400	320°	5	cloudy	high	15.23	33.48	15.24	33.49
87.80-S	7	1015	32°18.5'	121°42.5'	2000	320°	5	cloudy	high	15.20	33.51	15.20	33.48
87.85-S	7	1250	32°10.0'	122°01.0'	2000	320°	4	overcast	high	15.41	33.53	15.43	33.52
87.90-S	7	1540	32°00.0'	122°20.0'	2300	320°	5	overcast	high	15.32	33.40	15.42	33.46
90.28-S	4	0345	33°28.5'	117°47.0'	200	280°	3	clear	rough	16.04	33.49	10.62	33.68

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
90.30-P	V-4	0545	33°24.5'	117°55.0'	330	330°	3	clear	rough	17.82	-	11.33	33.60
90.50-P	4	1858	32°45.0'	119°16.5'	170	330°	2	cloudy	moderate	14.58	33.49	12.96	33.50
90.55-P	4	2237	32°35.0'	119°37.0'	600	270°	3	cloudy	moderate	14.14	33.39	13.32	33.48
90.60-P	5	0149	32°23.0'	120°00.5'	650	290°	5	cloudy	moderate	14.67	33.39	13.80	33.51
90.65-P	5	0452	32°15.0'	120°17.0'	2050	320°	6	overcast	rough	14.93	33.42	13.84	33.50
90.70-P	5	0820	32°04.0'	120°38.5'	2095	270°	5	overcast	very high	14.72	33.40	14.50	33.45
90.80-P	5	1505	31°42.0'	121°19.0'	2000	320°	6	overcast	very rough	15.54	33.48	-	33.54
90.85-P	5	1825	31°32.0'	121°39.0'	2200	320°	5	cloudy	high	15.78	33.55	15.71	33.58
90.90-P	5	2126	31°22.0'	121°58.0'	2100	320°	5	cloudy	very rough	15.72	33.57	15.32	33.51
93.27-P	7	1935	32°56.0'	117°19.0'	98	180°	3	cloudy	slight	15.06	33.52	10.65	33.68
93.30-P	7	1742	32°50.0'	117°31.5'	510	200°	3	overcast	slight	17.68	33.51	11.20	33.54
93.35-P	7	1419	32°40.0'	117°52.0'	340	090°	3	overcast	moderate	16.10	33.56	12.10	33.51
93.40-P	7	1157	32°30.0'	118°12.5'	1000	320°	1	overcast	slight	16.78	33.51	12.40	33.49
93.45-P	7	0841	32°20.0'	118°33.0'	450	320°	3	overcast	moderate	16.16	33.56	12.59	33.48
93.50-P	7	0527	32°10.0'	118°53.0'	750	320°	4	overcast	rough	15.84	33.51	14.22	33.48
93.55-P	7	0217	32°00.0'	119°15.0'	850	320°	5	overcast	very rough	15.20	33.49	14.14	33.45
93.60-P	6	2305	31°50.0'	119°34.0'	1800	270°	5	overcast	very rough	16.08	33.53	15.74	33.51
93.65-P	6	1953	31°41.0'	119°53.0'	2035	270°	5	overcast	high	15.62	33.49	15.46	33.48
93.70-P	6	1655	31°30.0'	120°15.0'	2000	330°	6	overcast	high	16.01	33.49	15.04	33.51

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
93.75-P	V-6	1310	31°18.5'	120°38.0'	2100	270°	6	overcast	very rough	16.08	33.54	16.04	33.48
93.80-P	6	0928	31°10.5'	120°55.0'	2000	340°	6	cloudy	high	16.18	33.49	16.16	33.54
93.85-P	6	0546	31°01.0'	121°15.0'	2200	320°	6	cloudy	high	15.85	33.46	15.77	33.56
93.90-P	6	0220	30°50.0'	121°35.0'	2200	320°	5	overcast	very rough	15.50	33.35	15.24	33.42
97.30-P	8	0308	32°15.5'	117°08.5'	35	360°	4	cloudy	moderate	14.98	33.51	9.86	33.71
97.32-P	8	0436	32°11.5'	117°16.5'	820	220°	3	overcast	moderate	17.20	33.45	11.20	33.48
97.35-P	8	0648	32°05.0'	117°28.5'	680	130°	3	overcast	slight	17.04	33.66	13.52	-
97.40-P	8	1001	31°55.0'	117°50.0'	850	220°	4	overcast	rough	16.61	33.57	12.10	33.48
97.45-P	8	1308	31°45.5'	118°10.0'	1000	220°	1	overcast	rough	15.72	33.53	14.95	33.44
97.50-P	8	1610	31°35.0'	118°30.0'	1300	290°	3	overcast	moderate	15.88	33.55	14.22	33.51
97.55-P	8	1910	31°25.0'	118°50.0'	550	300°	3	overcast	rough	16.00	33.55	15.55	33.56
97.60-P	8	2212	31°16.0'	119°10.0'	2100	270°	4	overcast	very rough	15.77	33.54	15.82	33.53
97.65-P	9	0109	31°05.5'	119°31.0'	2230	270°	3	overcast	high	16.29	33.50	16.08	-
97.70-P	9	0404	30°55.5'	119°50.5'	2130	320°	3	overcast	rough	16.19	33.51	16.06	33.48
97.75-P	9	0709	30°45.0'	120°11.0'	2000	250°	3	overcast	slight	16.28	33.55	16.19	33.55
97.80-P	9	1007	30°35.0'	120°31.0'	2000	240°	3	overcast	moderate	15.82	33.45	15.34	33.39
97.85-P	9	1309	30°25.0'	120°51.0'	2250	320°	3	cloudy	moderate	15.48	33.39	15.42	33.36
97.90-P	9	1704	30°11.0'	121°12.0'	2020	180°	3	cloudy	moderate	15.48	33.38	15.41	33.39
100.29-P	11	1136	31°42.0'	116°43.0'	100	140°	2	cloudy	smooth	14.54	33.52	10.66	33.53

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
100.30-P	V-11	1000	31°41.0'	116°46.5'	310	calm		partly cloudy	slight	16.02	33.49	11.18	33.51
100.35-P	11	0715	31°31.0'	117°06.5'	660	calm		partly cloudy	slight	17.24	33.61	12.88	33.48
100.40-P	11	0400	31°21.0'	117°27.0'	1100	calm		partly cloudy	moderate	17.04	33.63	-	33.48
100.45-P	11	0120	31°11.0'	117°46.0'	950	180°	1	partly cloudy	slight	16.26	33.54	14.44	33.46
100.50-P	10	2235	31°02.0'	118°08.0'	950	110°	4	partly cloudy	moderate	16.69	33.60	-	33.46
100.55-P	10	1938	30°53.0'	118°28.0'	1340	120°	5	partly cloudy	slight	16.61	33.48	16.38	33.48
100.60-P	10	1630	30°45.0'	118°49.0'	1850	140°	3	cloudy	moderate	16.57	33.52	16.13	33.46
100.65-P	10	1356	30°33.0'	119°09.0'	2050	140°	3	partly cloudy	moderate	16.40	33.53	15.92	33.46
100.75-P	10	0641	30°12.0'	119°48.0'	2140	180°	3	partly cloudy	slight	15.96	33.42	16.23	33.49
100.80-P	10	0338	30°02.0'	120°07.0'	2530	180°	5	partly cloudy	high	16.32	33.58	16.26	33.57
100.85-P	10	0102	29°51.0'	120°27.0'	2550	140°	4	partly cloudy	moderate	16.54	33.63	16.66	33.71
100.90-P	9	2203	29°41.0'	120°46.0'	2000	140°	3	partly cloudy	moderate	16.96	33.82	16.92	33.78
103.30-P	11	1708	31°05.0'	116°25.0'	45	130°	5	partly cloudy	slight	14.36	33.51	10.49	33.55
103.35-P	11	1955	30°56.0'	116°43.0'	1020	130°	5	cloudy	moderate	17.27	33.58	14.01	33.47
103.40-P	11	2310	30°45.0'	117°05.0'	1040	130°	4	partly cloudy	moderate	16.71	-	-	33.41
103.45-P	12	0212	30°30.0'	117°18.0'	1200	220°	4	partly cloudy	moderate	17.22	33.56	16.64	33.54
103.55-P	12	0841	30°14.0'	118°04.0'	1650	300°	4	clear	very rough	17.18	33.57	16.67	33.58
103.60-P	12	1153	30°05.0'	118°23.0'	2035	300°	4	cloudy	moderate	17.44	33.64	17.08	33.73
103.65-P	12	1504	29°55.0'	118°43.0'	2150	320°	4	cloudy	rough	16.80	33.49	16.41	33.53

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
103.70-P	V-12	1806	29°47.5'	119°04.0'	1900	300°	3	cloudy	rough	16.94	33.58	16.90	33.71
103.75-P	12	2115	29°37.0'	119°24.0'	1940	340°	3	partly cloudy	moderate	17.10a)	33.66	16.78	33.71
103.80-P	13	0022	29°26.0'	119°43.0'	2000	340°	3	partly cloudy	moderate	17.26	33.62	16.93	33.68
103.85-P	13	0320	29°15.0'	120°04.0'	2250	340°	5	partly cloudy	rough	17.63	33.68	17.24	33.71
103.90-P	13	0550	29°10.0'	120°19.5'	2040	300°	5	partly cloudy	slight	17.48	33.68	17.46	33.79
107.32-P	15	0230	30°26.5'	116°12.0'	250	340°	5	partly cloudy	very rough	17.37	33.57	11.87	33.55
107.40-P	14	2206	30°12.5'	116°45.0'	1510	340°	4	cloudy	rough	17.40	33.57	14.28	33.48
107.45-P	14	1921	30°05.5'	117°03.5'	1200	320°	4	cloudy	very rough	17.60	33.68	14.40	33.49
107.50-P	14	1537	29°53.5'	117°23.0'	1600	320°	4	cloudy	rough	17.39	33.62	12.98	33.49
107.55-P	14	1150	29°42.5'	117°43.0'	1800	270°	6	cloudy	rough	16.88	33.51	16.34	33.48
107.65-P	14	0322	29°20.5'	118°20.0'	2000	320°	6	cloudy	very rough	17.16	33.53	15.89	33.44
107.70-P	14	0014	29°12.0'	118°40.0'	1900	270°	5	cloudy	very rough	17.40	33.60	16.82	-
107.75-P	13	2105	29°06.0'	119°01.0'	2000	340°	4	cloudy	very rough	17.58	33.68	16.96	33.64
107.80-P	13	1619	28°56.5'	119°24.5'	2000	320°	6	cloudy	very rough	17.16	33.64	16.92	33.67
107.85-P	13	1309	28°46.0'	119°42.5'	2000	040°	6	cloudy	very rough	17.37	33.57	16.98	33.62
107.90-P	13	0955	28°38.0'	119°58.0'	2000	320°	5	partly cloudy	very rough	18.31	-	17.70	33.86
110.33-B	21	2315	29°50.5'	115°52.0'	47	330°	3	overcast	slight	13.90	33.49	11.16	33.59

a) Alternate value, 17.28°C.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
110.35-B	V-21	2145	29°46.5'	116°00.0'	700	320°	2	overcast	slight	17.40	33.59	15.00	33.53
110.40-B	21	1740	29°39.0'	116°23.0'	1150	330°	3	overcast	slight	17.76	33.66	17.90a)	33.68
110.45-B	21	1540	29°26.0'	116°39.5'	450	330°	4	overcast	moderate	17.75	33.67	16.30	33.48
110.50-B	21	1310	29°16.5'	116°59.0'	2000	330°	4	overcast	moderate	17.56	33.60	16.26	33.50
110.55-B	21	1000	29°06.0'	117°18.0'	2000	320°	5	partly cloudy	moderate	17.88	33.64	12.81	33.46
110.60-B	21	0710	28°56.5'	117°39.0'	2000	330°	4	partly cloudy	moderate	17.92	33.62	17.36	33.64
110.65-B	21	0350	28°46.5'	117°58.0'	2000	320°	4	partly cloudy	moderate	17.58	33.58	16.90	33.54
110.70-B	21	0110	28°36.5'	118°18.0'	1850	330°	4	partly cloudy	moderate	17.35	33.54	17.03	33.53
110.75-B	20	2200	28°27.5'	118°39.0'	2000	320°	4	partly cloudy	moderate	18.00	33.68	18.24	33.88
110.80-B	20	1920	28°21.0'	118°57.0'	2000	330°	4	partly cloudy	moderate	18.86	34.05	18.81	34.07
110.85-B	20	1625	28°06.0'	119°16.5'	2000	320°	4	cloudy	moderate	18.86	34.07	18.14	34.00
110.90-B	20	1330	27°56.5'	119°36.0'	2000	320°	4	cloudy	moderate	18.66	34.01	18.18	33.96
113.30-B	18	1930	29°22.5'	115°17.5'	29	280°	5	clear	moderate	16.12	33.67	11.58	33.77
113.35-B	18	2240	29°12.0'	115°39.0'	620	300°	5	clear	moderate	15.50	33.61	12.48	33.60
113.40-B	19	0200	29°01.0'	115°57.0'	950	320°	5	clear	rough	17.76	33.68	17.32	33.68
113.45-B	19	0525	28°52.0'	116°18.0'	1600	320°	5	clear	rough	18.11	33.69	17.14	33.67
113.50-B	19	0830	28°41.0'	116°39.5'	2000	320°	5	clear	rough	18.08	33.75	17.26	33.64

a) Mean value of 17.83 and 17.96°C.

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TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
113.55-B	V-19	1145	28°30.0'	117°02.0'	2000	320°	5	cloudy	rough	18.41	33.87	17.78	33.87
113.60-B	19	1510	28°19.0'	117°22.0'	2000	330°	5	cloudy	rough	18.24	33.78	17.26	33.73
113.65-B	19	1710	28°13.5'	117°35.5'	2000	320°	4	clear	moderate	17.82	33.68	17.14	33.73
113.70-B	19	2000	28°02.0'	117°55.5'	2000	310°	4	clear	moderate	17.50	33.58	17.50	33.73
113.75-B	19	2245	27°52.0'	118°15.0'	1900	320°	4	clear	moderate	18.52	33.90	18.03	33.83
113.80-B	20	0120	27°43.5'	118°35.0'	2000	320°	4	clear	moderate	18.96	34.02	18.61	34.02
113.85-B	20	0430	27°32.0'	118°53.0'	2000	320°	4	clear	slight	18.88	34.04	18.93	34.22
113.90-B	20	0745	27°22.0'	119°12.0'	2000	330°	4	partly cloudy	moderate	19.24	34.18	18.81	34.11
117.26-B	18	1345	28°56.0'	114°41.0'	41	280°	2	overcast	moderate	16.88	33.71	11.13	33.59
117.30-B	18	1120	28°48.0'	114°56.5'	54	320°	5	cloudy	moderate	16.34	33.59	13.12	33.55
117.35-B	18	0825	28°38.0'	115°16.0'	120	300°	4	clear	moderate	16.32	33.57	13.20	33.48
117.45-B	17	2250	28°18.0'	115°55.0'	1800	320°	4	cloudy	moderate	17.80	33.68	17.04	33.64
117.50-B	17	1820	28°07.5'	116°16.0'	2000	300°	4	partly cloudy	moderate	17.45	33.67	15.28	33.57
117.55-B	17	1515	27°57.5'	116°34.5'	2000	300°	3	partly cloudy	moderate	17.74	33.69	16.54	33.58
117.60-B	17	1220	27°55.5'	116°48.0'	2000	320°	3	partly cloudy	moderate	17.96	-	17.31	-
117.65-B	17	0910	27°43.0'	117°10.0'	2000	320°	4	cloudy	moderate	17.98	33.73	17.34	33.67
117.70-B	17	0525	27°31.0'	117°31.5'	2000	320°	5	clear	moderate	18.09	33.73	17.58	33.69
117.75-B	17	0225	27°19.0'	117°51.5'	2000	340°	4	cloudy	slight	18.46	33.75	18.34	33.95
117.80-B	16	2315	27°08.0'	118°11.5'	2000	320°	3	overcast	slight	18.92	34.00	17.82	34.00

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
117.85-B	V-16	2020	26°58.0'	118°30.5'	2000	320°	2	overcast	slight	18.82	33.96	17.91	33.85
117.90-B	16	1720	26°47.5'	118°50.0'	2000	340°	4	overcast	slight	18.53	33.89	17.86	33.78
118.39-B	18	0445	28°18.5'	115°24.0'	130	300°	3	clear	moderate	16.42	33.56	14.50	33.55
119.33-B	15	0040	28°19.0'	114°53.0'	60	320°	4	clear	moderate	17.88	33.82	15.94	33.65
120.25-B	14	1900	28°23.0'	114°14.5'	30	300°	4	cloudy	smooth	17.88	33.74	12.05	33.69
120.30-B	14	2145	28°13.0'	114°34.0'	50	300°	4	partly cloudy	slight	17.38	33.75	13.28	33.77
120.35-B	15	0320	28°03.0'	114°54.0'	45	350°	4	clear	moderate	17.56	33.78	17.18	33.78
120.40-B	15	0540	27°56.5'	115°14.0'	20	280°	5	clear	moderate	18.18	33.84	-	-
120.45-B	15	0805	27°43.0'	115°33.0'	1200	320°	3	clear	slight	17.72	33.78	14.40	33.78
120.55-B	15	1500	27°23.0'	116°12.0'	2000	320°	3	cloudy	slight	17.29	33.70	14.62	33.57
120.60-B	15	1725	27°13.0'	116°31.5'	2000	320°	4	cloudy	moderate	17.69	33.66	16.10	33.54
120.65-B	15	2020	27°02.5'	116°51.0'	2000	330°	3	cloudy	moderate	17.88	-	16.39	-
120.70-B	15	2320	26°52.0'	117°10.0'	2000	330°	3	cloudy	moderate	18.17	33.72	-	33.86
120.75-B	16	0220	26°42.5'	117°30.0'	2000	330°	3	cloudy	slight	18.39	33.78	17.39	33.82
120.85-B	16	0805	26°22.5'	118°09.0'	2000	320°	4	overcast	slight	18.42	33.73	16.90	33.65
120.90-B	16	1125	26°13.0'	118°27.5'	2100	330°	4	overcast	slight	18.66	-	17.03	33.77
123.37-B	14	0620	27°24.0'	114°39.5'	39	320°	3	clear	slight	16.46	33.86	12.60	33.58
123.42-B	13	2220	27°15.5'	115°00.0'	1000	320°	5	clear	rough	-	-	16.48	33.61
123.50-B	13	1810	26°58.0'	115°30.5'	1900	340°	4	cloudy	moderate	17.94	33.64	15.82	33.57

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TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
123.55-B	V-13	1420	26°46.5'	115°52.0'	2000	340°	4	cloudy	moderate	18.00	33.66	16.13	33.56
123.60-B	13	1125	26°38.0'	116°10.0'	2000	320°	4	partly cloudy	moderate	17.98	33.64	16.87	33.75
127.34-B	12	1350	26°55.5'	114°06.0'	44	290°	2	partly cloudy	smooth	15.07	33.90	12.56	34.09
127.40-B	12	1720	26°43.5'	114°29.5'	1600	320°	4	partly cloudy	slight	17.58	33.68	17.22	33.77
127.45-B	12	2010	26°33.5'	114°48.5'	1800	320°	4	partly cloudy	slight	19.36	34.31	19.07	34.26
127.50-B	12	2245	26°23.5'	115°08.0'	1800	320°	4	cloudy	moderate	19.23	34.13	19.02	34.23
127.55-B	13	0210	26°13.5'	115°27.0'	1900	320°	4	partly cloudy	moderate	18.78	33.86	17.40	33.84
127.60-B	13	0520	26°03.5'	115°46.5'	2000	320°	4	partly cloudy	moderate	18.81	33.85	17.06	33.69
130.30-B	12	0825	26°29.0'	113°29.0'	41	320°	2	clear	slight	17.36	33.93	16.86	33.93
130.35-B	12	0530	26°19.0'	113°48.5'	160	280°	4	clear	moderate	17.55	33.94	14.26	33.94
130.40-B	12	0230	26°10.5'	114°06.5'	1100	320°	3	clear	slight	17.44	33.80	15.01	33.77
130.45-B	11	2320	25°59.0'	114°25.5'	1900	320°	3	partly cloudy	slight	18.81	33.96	18.52	33.94
130.50-B	11	2020	25°49.0'	114°46.0'	1900	330°	4	partly cloudy	slight	18.90	34.00	19.29	34.39
130.55-B	11	1725	25°38.5'	115°04.0'	2000	320°	4	clear	moderate	18.90	34.02	17.12	33.73
130.60-B	11	1410	25°30.5'	115°28.5'	1900	320°	3	clear	slight	18.30	33.82	17.88	33.96
133.25-B	10	1100	26°04.5'	112°48.0'	44	320°	4	partly cloudy	moderate	18.12	33.89	14.94	33.82
133.30-B	10	1400	25°54.5'	113°07.5'	108	360°	4	cloudy	moderate	18.05	33.89	15.06	33.84
133.35-B	10	2020	25°44.5'	113°26.5'	350	320°	4	cloudy	moderate	17.66	33.86	16.70	33.77

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
133.40-B	V-10	2330	25°33.0'	113°43.5'	1300	320°	4	cloudy	moderate	18.27	33.84	17.76a)	33.86
133.45-B	11	0225	25°22.0'	114°00.0'	1900	340°	4	cloudy	moderate	18.35	33.86	17.44	33.89
133.50-B	11	0615	25°14.5'	114°24.0'	1900	320°	4	clear	moderate	18.65	33.86	18.66	34.19
137.23-B	10	0515	25°34.0'	112°18.5'	40	300°	4	partly cloudy	moderate	19.06	34.22	14.92	34.27
137.30-B	10	0130	25°20.0'	112°45.5'	180	300°	3	partly cloudy	moderate	18.52	33.91	16.53	33.95
137.35-B	9	2000	25°10.0'	113°04.5'	650	300°	4	partly cloudy	moderate	18.08	33.86	16.45	33.80
137.45-B	9	1215	24°50.0'	113°42.5'	1900	320°	4	cloudy	moderate	18.57	33.91	19.10	34.31
137.50-B	9	0910	24°40.0'	114°01.5'	1700	320°	4	overcast	moderate	18.58	33.91	17.85	34.02

a) Mean value of 17.69 and 17.82°C.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_3	Z	T	S	O_2	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m
50.50	BLACK DOUGLAS; June 15, 1958; 0412 GCT; 39°40'N, 124°08'W; sounding, 520 fm; wind, 300°, force 5; weather, clear; sea, rough; wire angle, 18°.										
0	13.72	32.92	5.98	329	0	13.72	32.92	5.98	24.66	329	0.00
10	13.71	32.92	6.05	329	10	13.71	32.92	6.05	24.66	329	0.03
28	13.45	32.92	5.91	324	20	13.63	32.92	6.02	24.68	327	0.07
42	10.98	32.92	5.43	279	30	13.42	32.92	5.90	24.72	323	0.10
51	10.02	33.01	5.15	257	50	10.07	33.01	5.17	25.41	258	0.16
60	9.14	33.04	4.99	241	75	8.70	33.17	5.24	25.76	224	0.22
69	8.84	33.13	5.29	230	100	8.26	33.46	4.62	26.04	198	0.27
87	8.42	33.27	5.07	214	150	8.39	33.90	2.88	26.38	166	0.36
100	8.26	33.46	4.62	198	200	7.80	33.99	2.40	26.54	151	0.44
113	8.34	33.62	4.23	186	250	7.37	34.04	1.66	26.63	142	0.52
135	8.26	33.78	3.30	174	300	6.66	34.06	1.52	26.74	131	0.59
160	8.18	33.92	2.85	162	400	6.21	34.15	0.69	26.88	118	0.72
194	7.82	33.97	2.70	153	500	5.64	34.21	0.54	27.00	107	0.83
241	7.46	34.04	1.73	143							
313	6.52	34.07	1.49	128							
405	6.20	34.16	0.68	118							
538	5.40	34.22	0.51	104							
60.55	BLACK DOUGLAS; June 12, 1958; 0300 GCT; 37°47.5'N, 123°15'W; sounding, 65 fm; wind, 320°, force 6; weather, partly cloudy; sea, very rough; wire angle, 07°.										
0	15.92	32.99	6.50	368	0	15.92	32.99	6.50	24.25	368	0.00
10	14.38	33.15	6.76	325	10	14.38	33.15	6.76	24.70	325	0.03
29	10.21	33.08	5.52	256	20	11.17	33.09	5.80	25.28	270	0.06
48	10.42	33.40	4.82	234	30	10.24	33.09	5.51	25.44	255	0.09
72	9.32	33.68	2.88	196	50	10.38	33.42	4.70	25.68	232	0.14
96	9.10	33.75	2.39	188	75	9.27	33.69	2.80	26.07	195	0.19
					100	(9.08)	(33.76)	(2.32)	(26.16)	(187)	(0.24)
60.90	BLACK DOUGLAS; June 11, 1958; 0335 GCT; 36°37'N, 125°47'W; sounding, 2400 fm; wind, 330°, force 5; weather, partly cloudy; sea, very rough; wire angle, 10°.										
0	17.34	32.97	5.46	401	0	17.34	32.97	5.46	23.90	401	0.00
10	17.32	32.95	5.55	402	10	17.32	32.95	5.55	23.89	402	0.04
29	14.90	33.22	5.80	331	20	16.10	33.09	5.69	24.28	365	0.08
43	14.69	33.30	5.74	320	30	14.90	33.22	5.80	24.65	330	0.11
53	13.72	33.18	5.71	310	50	13.87	33.20	5.72	24.84	312	0.18
63	13.50	33.19	5.53	305	75	13.25	33.16	5.84	24.94	302	0.25
72	13.28	33.16	5.93	303	100	11.70	33.29	5.16	25.34	264	0.33
90	13.04	33.24	4.73	293	150	9.05	33.46	4.84	25.92	209	0.44
104	11.12	33.31	5.32	253	200	8.23	33.78	3.98	26.30	173	0.54
116	10.37	33.34	5.18	238	250	7.60	33.96	2.98	26.53	151	0.62
139	9.31	33.39	4.93	218	300	6.78	33.98	2.44	26.67	138	0.70
165	8.76	33.55	4.70	198	400	5.92	34.02	1.55	26.81	125	0.84
199	8.24	33.78	3.99	173	500	5.41	34.08	0.93	26.93	114	0.96
248	7.62	33.95	3.01	152							
322	6.48	33.99	2.29	134							
415	5.83	34.02	1.48	124							
549	5.16	34.15	0.62	106							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn.m
BLACK DOUGLAS; June 7, 1958; 1535 GCT; 36°03'N, 122°02'W; sounding, 750 fm; wind, calm; weather, partly cloudy; sea, slight; wire angle, 04°.											70.55
0	16.49	33.06	5.53	376	0	16.49	33.06	5.53	24.16	376	0.00
10	16.06	33.01	5.49	369	10	16.06	33.01	5.49	24.24	369	0.04
29	13.47	33.27	6.02	298	20	15.05	33.12	5.71	24.53	341	0.07
39	11.61	33.42	-	254	30	13.38	33.28	6.02	25.01	296	0.10
48	11.38	33.49	4.62	244	50	11.38	33.50	4.55	25.56	243	0.16
58	11.34	33.60	4.38	235	75	10.26	33.65	3.80	25.88	213	0.22
67	11.05	33.66	4.49	226	100	8.94	33.70	3.40	26.14	189	0.27
80	9.88	33.64	3.52	208	150	8.53	33.94	2.30	26.39	165	0.36
94	9.12	33.64	3.46	196	200	7.92	34.06	1.56	26.57	147	0.44
107	8.80	33.78	3.21	181	250	7.68	34.15	1.20	26.67	138	0.51
129	8.82	33.86	2.68	175	300	7.36	34.16	1.14	26.72	133	0.58
186	8.06	34.04	1.98	152	400	6.64	34.25	0.66	26.90	116	0.70
231	7.81	34.14	1.21	140	500	5.80	34.27	0.44	27.02	104	0.82
302	-	34.16	1.14								
393	6.68	34.25	0.68	117							
513	5.70	34.27	0.41	103							
BLACK DOUGLAS; June 8, 1958: 1054 GCT; 34°53'N, 124°30'W; sounding, 2250 fm; wind, 300°, force 4; weather, overcast; sea, moderate; wire angle, 07°.											70.90
0	17.76	33.02	5.39	407	0	17.76	33.02	5.39	23.84	407	0.00
10	17.74	33.01	5.30	407	10	17.74	33.01	5.30	23.84	407	0.04
30	16.30	33.27	5.69	356	20	17.68	33.01	5.32	23.85	406	0.08
39	15.38	33.31	5.75	334	30	16.30	33.27	5.69	24.37	356	0.12
49	15.02	33.28	5.58	329	50	15.00	33.27	5.61	24.66	329	0.19
58	14.62	33.22	5.98	325	75	13.98	33.23	5.83	24.85	311	0.27
68	14.34	33.22	5.88	320	100	11.46	33.33	5.06	25.41	257	0.34
81	13.34	33.25	5.76	297	150	9.42	33.72	3.00	26.07	195	0.45
95	11.88	33.30	5.35	267	200	9.04	34.04	2.18	26.38	166	0.54
108	10.81	33.39	4.56	242	250	8.48	34.11	1.76	26.52	152	0.63
130	9.84	33.60	3.41	210	300	7.88	34.09	1.85	26.60	145	0.70
157	9.30	33.77	2.86	190	400	6.76	34.17	1.04	26.82	124	0.84
188	9.10	33.98	2.30	171	500	5.88	34.21	0.62	26.97	110	0.96
232	8.68	34.11	1.74	155							
304	-	34.09	1.86								
395	6.80	34.17	1.06	124							
516	5.76	34.22	0.52	108							
ORCA; June 5, 1958; 0020 GCT; 34°26'N, 120°31.5'W; sounding, 52 fm; wind, 280°, force 3; weather, clear; sea, rough; wire angle, 06°.											80.51
0	11.69	33.69	5.07	235	0	11.69	33.69	5.07	25.65	235	0.00
10	11.65	33.64	5.10	238	10	11.65	33.64	5.10	25.62	238	0.02
30	11.32	33.72	4.80	226	20	11.50	33.69	5.00	25.69	231	0.05
50	11.04	33.69	4.37	224	30	11.32	33.72	4.80	25.74	226	0.07
76	10.21	33.72	3.34	208	50	11.04	33.69	4.37	25.77	224	0.12
					75	10.25	33.72	3.37	25.93	208	0.17

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10^{-5} cm/g	ΔD dyn. m

80.55 ORCA; June 5, 1958; 0258 GCT; 34°17.5'N, 120°47.5'W; sounding, 400 fm; wind, 280°, force 3; weather, clear; sea, rough; wire angle, 18°.

0	14.66	33.59	8.36	298	0	14.66	33.59	8.36	24.98	298	0.00
10	14.00	33.58	8.32	286	10	14.00	33.58	8.32	25.12	286	0.03
28	13.45	33.58	6.38	275	20	13.60	33.58	6.75	25.20	278	0.06
38	12.29	33.55	4.94	256	30	13.43	33.58	6.35	25.23	275	0.08
47	11.87	33.62	4.56	243	50	11.60	33.66	4.27	25.65	235	0.14
57	11.18	33.71	3.75	224	75	9.93	33.78	2.78	26.03	199	0.19
66	10.10	33.75	2.84	204	100	9.35	33.87	2.29	26.20	183	0.24
81	9.80	33.79	2.74	196	150	8.92	34.03	1.90	26.40	164	0.33
94	9.42	33.86	2.32	185	200	8.56	34.16	1.42	26.55	150	0.41
108	9.22	33.90	2.27	179	250	8.20	34.22	1.17	26.65	140	0.48
131	9.02	33.97	2.18	170	300	8.00	34.24	1.16	26.70	136	0.55
158	8.86	34.06	1.79	161	400	7.28	34.24	0.79	26.80	126	0.68
191	8.61	34.15	1.52	151	500	6.40	34.23	0.46	26.92	115	0.81
237	8.30	34.21	1.20	142							
310	7.98	34.24	1.13	134							
404	7.22	34.24	0.76	125							
527	6.13	34.22	0.38	112							

80.60 ORCA; June 5, 1958; 0655, 0749 GCT; 34°08'N, 121°08'W; sounding, 1200 fm; wind, 280°, force 3; weather, partly cloudy; sea, rough; wire angle, 29°, 29°.

0	16.42	33.04	5.80	376	0	16.42	33.04	5.80	24.17	376	0.00
10	16.44	33.04	6.00	376	10	16.44	33.04	6.00	24.16	376	0.04
28	14.04	32.94	6.08	334	20	15.72	33.00	6.01	24.30	363	0.07
43	13.48	33.20	6.40	303	30	13.96	32.96	6.13	24.64	331	0.11
52	13.02	33.22	5.76	294	50	13.18	33.22	5.94	25.00	297	0.17
61	11.51	33.23	5.35	266	75	10.60	33.38	5.03	25.60	239	0.24
71	10.84	33.36	5.11	244	100	9.40	33.44	4.37	25.86	215	0.30
90	9.70	33.42	4.55	221	150	8.82	33.89	2.47	26.30	173	0.40
104	9.34	33.45	4.34	214	200	8.06	33.99	2.30	26.50	154	0.48
117	9.16	33.60	4.07	200							
140	9.13	33.82	2.50	183							
149	8.82	33.89	2.47a)	173							
181	8.32	33.96	2.44	160							
226	7.78	34.03	1.96	147							

80.70 ORCA; June 5, 1958; 1344, 1409 GCT; 33°44.5'N, 121°51.5'W; sounding, 2000+ fm; wind, 290°, force 2; weather, cloudy; sea, moderate; wire angle, 07°, 07°.

0	16.74	32.98	5.78	387	0	16.74	32.98	5.78	24.05	387	0.00
10	16.75	33.04	5.85	383	10	16.75	33.04	5.85	24.10	383	0.04
29	15.62	32.96	5.98	365	20	16.74	33.04	5.86	24.10	383	0.08
45	13.42	32.94	6.22	322	30	15.40	32.96	6.00	24.33	360	0.11
55	12.90	33.00	6.29	308	50	13.16	32.96	6.26	24.81	315	0.18
65	12.32	32.99	6.02	297	75	12.00	33.11	5.48	25.15	283	0.26
74	12.02	33.10	5.52	284	100	10.22	33.39	4.40	25.68	232	0.32
94	10.59	33.32	4.70	243	150	8.92	33.73	3.28	26.16	186	0.43
108	9.98	33.50	4.11	220	200	8.29	33.98	2.59	26.45	159	0.52
122	9.92	33.60	3.80	212	250	7.80	34.08	2.02	26.61	144	0.59
147	9.04	33.71	3.28	190	300	7.25	34.13	1.56	26.72	133	0.66
175	8.55	33.88	3.27	170	400	6.58	34.19	0.93	26.86	120	0.80
213	8.18	34.03	2.27	153	500	5.96		0.48			
265	7.60	34.10	1.92	140	600	(5.32)		(0.27)			
347	6.86	34.17	1.18	125							
449	6.22	34.22	0.62	114							
593	5.38	34.16u	0.30								

a) Alternate value, 2.74 ml/L, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

ORCA; June 5, 1958; 1954, 2023 GCT; 33°29'N, 122°26'W; sounding, 2000+ fm; wind, 290°, force 2; weather, partly cloudy; sea, moderate; wire angle, 13°, 14°. 80.80

0	17.72	33.04	5.62	405	0	17.72	33.04	5.62	23.86	405	0.00
10	17.40	33.12	5.68	392	10	17.40	33.12	5.68	24.00	392	0.04
29	15.67	33.30	5.88	340	20	17.37	33.12	5.69	24.00	392	0.08
38	15.46	33.31	5.90	336	30	15.63	33.30	5.89	24.54	340	0.12
48	14.65	33.27	6.03	322	50	14.55	33.26	6.02	24.75	321	0.18
57	14.36	33.23	6.00	319	75	14.18	33.39	6.03	24.92	304	0.26
66	14.22	33.30	6.04	311	100	11.65	33.42	5.48	25.45	254	0.33
80	14.18	33.40	6.03	303	150	9.25	33.63	4.57	26.02	200	0.45
94	12.42	33.43	5.94	267	200	8.59	33.85	3.12	26.30	173	0.54
108	10.80	33.42	5.09	240	250	8.09	34.07	2.18	26.55	150	0.62
132	9.78	33.51	5.08	216	300	7.38	34.07	1.63	26.66	140	0.70
159	9.14	33.66	4.39	195	400	6.57	34.08	0.99	26.78	128	0.84
191	8.66	33.81	3.36	177	500	5.86	34.11	0.53	26.89	117	0.96
238	8.24	34.06	2.38	152							
312	7.26	34.07	1.54	138							
407	6.52	34.09a)	0.94	126							
534	5.66	34.12a)	0.46	114							

ORCA; June 6, 1958; 0300 GCT; 33°10'N, 123°16'W; sounding, 2000+ fm; wind, 290°, force 1; weather, partly cloudy; sea, moderate; wire angle, 01°. 80.90

0	18.36	33.31	5.46	399	0	18.36	33.31	5.46	23.93	399	0.00
10	17.88	33.30	5.44	390	10	17.88	33.30	5.44	24.02	390	0.04
30	16.18	33.28	5.74	353	20	17.43	33.30	5.49	24.12	380	0.08
39	15.22	33.24	5.91	336	30	16.18	33.28	5.74	24.41	353	0.11
49	14.90	33.26	5.86	328	50	14.86	33.26	5.86	24.68	328	0.18
59	14.41	33.28	5.82	316	75	14.15	33.33	5.92	24.88	308	0.26
68	14.26	33.31	5.90	311	100	11.27	33.40	4.79	25.50	249	0.33
82	14.05	33.36	5.96	303	150	9.39	33.68	3.60	26.04	198	0.44
96	11.62	33.40	4.92	255	200	8.55	33.91	2.63	26.36	168	0.54
111	10.60	33.40	4.56	238	250	8.00	34.10	2.17	26.60	145	0.62
135	9.67	33.59	3.88	209	300	7.40	34.11	1.68	26.68	137	0.69
164	9.19	33.75	3.37	189	400	6.67	34.18	0.83	26.84	122	0.82
198	8.58	33.90	2.66	169	500	6.05	34.26	0.45	26.98	108	0.95
245	8.04	34.10	2.22	146							
323	7.20	34.11	1.44	134							
420	6.54	34.20	0.70	118							
551	5.76	34.30	0.32	102							

ORCA; June 12, 1958; 0445 GCT; 32°50'N, 119°01'W; sounding, 950 fm; wind, 300°, force 4; weather, clear; sea, rough; wire angle, 31°. 90.45

0	16.32	33.67	6.02	328	0	16.32	33.67	6.02	24.68	328	0.00
8	16.32	33.58	5.90	334	10	16.28	33.58	5.89	24.60	334	0.03
30	12.86	33.45	5.46	274	20	16.18	33.57	5.87	24.64	331	0.07
38	12.38	33.54	5.08	258	30	12.86	33.45	5.46	25.24	274	0.10
51	11.58	33.60	4.61	239	50	11.62	33.60	4.63	25.59	241	0.15
60	11.07	33.57	4.38	233	75	10.32	33.62	3.90	25.84	216	0.20
68	10.74	33.60	4.13	225	100	9.27	33.78	3.28	26.14	188	0.26
85	9.67	33.65	3.69	204	150	8.72	34.07	2.37	26.46	158	0.35
101	9.26	33.78	3.28	188	200	8.40	34.20	1.54	26.61	144	0.42
113	9.10	33.82	2.88	183	250	8.07	34.26	1.31	26.70	135	0.49
132	9.00	33.96	2.54	171	300	7.72	34.34	0.98	26.82	124	0.56
162	8.59	34.10	2.30	154	400	6.82	34.42	0.51	27.01	106	0.68
191	8.42	34.20	1.58	144	500	(6.06)	(34.42)	(0.33)	(27.10)	(97)	(0.78)
234	8.20	34.19u	1.40								
300	7.72	34.34	0.98	124							
384	6.96	34.42	0.55	108							
499	6.07	34.42	0.34	97							

a) Salinity samples at 407 and 534 meters appear to have been reversed; they are assumed to be listed in correct order.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
90.90	ORCA; June 10, 1958; 2335 GCT; 31°27'N, 121°55'W; sounding, 2000+ fm; wind, 300°, force 4; weather, cloudy; sea, rough; wire angle, 30°.										
0	18.58	33.48	5.12	393	0	18.58	33.48	5.12	23.99	393	0.00
8	18.56	33.47	5.06	393	10	18.56	33.47	5.06	23.99	393	0.04
26	15.86	33.25	5.36	348	20	18.50	33.46	5.06	24.00	392	0.08
39	15.62	33.35	5.36	336	30	15.77	33.28	5.36	24.50	345	0.12
47	15.53	33.40	5.36	330	50	15.45	33.41	5.36	24.66	329	0.18
57	15.34	33.44	5.36	324	75	14.47	33.48	5.43	24.94	303	0.26
66	15.16	33.40u	5.36		100	11.86	33.44	4.84	25.42	257	0.33
82	13.81	33.48	5.52	290	150	9.30	33.64	3.59	26.03	199	0.45
95	12.37	33.42	5.02	267	200	8.50	33.97	3.18	26.41	163	0.54
108	11.10	33.47	4.63	240	250	7.90	34.05	2.20	26.56	148	0.62
129	10.02	33.52	4.06	220	300	7.41	34.11	1.92	26.68	137	0.69
154	9.20	33.68	3.54	195	400	6.42	34.26	0.96	26.94	113	0.82
187	8.69	33.92	3.42	170	500	5.96	34.33	0.63	27.05	102	0.94
232	8.09	34.02	2.35	153							
307	7.36	34.12	1.86	135							
401	6.42	34.26	0.96	113							
538	5.78	34.34	0.51	99							
100.70	ORCA; June 24, 1958; 1837 GCT; 30°21'N, 119°27.5'W; sounding, 2000+ fm; wind, 280°, force 5; weather, overcast; sea, high; wire angle, 28°.										
0	19.08	33.64		393	0	19.08	33.64		23.99	393	0.00
10	19.08	-			10	19.08	33.64		23.99	393	0.04
33	18.78	33.73		380	20	19.03	33.66		24.02	390	0.08
43	17.43	33.59		358	30	18.99	33.68		24.04	388	0.12
57	16.96	-			50	17.00	33.59		24.46	348	0.19
67	16.96	33.68		342	75	16.43	33.68		24.65	330	0.28
76	16.38	33.68		329	100	15.00	33.66		24.96	301	0.36
95	15.36	33.66		308	150	10.73	33.55		25.72	228	0.49
113	13.88	33.68		276	200	9.03	33.76		26.16	186	0.60
127	12.46	33.59		256	250	8.08	33.95		26.46	158	0.68
149	10.78	33.55		229	300	7.37	34.07		26.66	139	0.76
184	9.44	33.71		196	400	6.50	34.19		26.87	119	0.90
220	8.61	33.82		175	500	5.85	34.29		27.03	104	1.01
274	7.72	34.03		147	600	5.30	34.36		27.16	92	1.12
356	6.80	34.13		127							
463	6.08	34.26		108							
608	5.22	34.37		90							
107.60	ORCA; June 15, 1958; 1917 GCT; 29°34'N, 118°04'W; sounding, 1800 fm; wind, 310°, force 2; weather, overcast; sea, rough; wire angle, 09°.										
0	18.76	33.68	5.36	382	0	18.76	33.68	5.36	24.10	382	0.00
10	18.65	33.75	5.20	376	10	18.65	33.75	5.20	24.16	376	0.04
30	18.48	33.74	-	372	20	18.57	33.75		24.19	374	0.08
60	18.03	33.69	-	365	30	18.48	33.74		24.21	372	0.11
70	14.49	33.64	-	291	50	18.20	33.71		24.26	367	0.19
79	12.72	33.49	-	268	75	13.40	33.55		25.21	277	0.27
94	10.88	33.51	-	234	100	10.65	33.52		25.70	230	0.33
109	10.44	33.57	-	222	150	10.05	33.93		26.12	190	0.44
123	10.26	33.68	-	211	200	9.50	34.24		26.46	158	0.53
143	10.14	33.89	-	194	250	9.02	34.31		26.60	145	0.60
163	9.92	34.02	-	181	300	7.90	34.24		26.72	133	0.68
191	9.64	34.22	-	161	400	6.81	34.23		26.86	120	0.81
215	9.25	34.27	-	152	500	6.20	34.28		26.98	109	0.93
268	8.44	34.27	-	139	600	(5.55)	(34.37)		(27.13)	(94)	(1.04)
349	7.21	34.22	-	126							
455	6.47	34.25	-	114							
592	5.60	34.36	-	95							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

120.50

STRANGER; June 19, 1958; 0442 GCT; 27°37'N, 115°53'W; sounding, 2400 fm; wind, 320°, force 6; weather, missing; sea, very rough; wire angle, 26°.

0	18.20	33.58	5.63	377	0	18.20	33.58	5.63	24.15	377	0.00
9	18.18	33.58	5.60	376	10	18.18	33.58	5.61	24.16	376	0.04
27	18.19	33.58	5.77	376	20	18.18	33.58	5.65	24.16	376	0.08
40	16.64	33.49	5.92	349	30	18.16	33.58	5.79	24.16	376	0.11
49	15.50	33.46	6.03	325	50	15.32	33.46	6.03	24.74	321	0.18
57	14.20	33.43	6.02	301	75	11.46	33.46	4.96	25.52	247	0.25
64	13.04	33.46	5.56	277	100	10.24	33.60	4.18	25.84	217	0.31
78	11.26	33.47	4.88	244	150	10.82	34.26	1.24	26.25	178	0.41
90	10.68	33.50	4.58	231	200	10.34	34.42	0.88	26.46	158	0.50
100	10.24	33.60	4.18	217	250	9.83	34.47	0.76	26.59	146	0.58
118	10.22	33.78	3.20	203	300	9.28	34.46	0.60	26.67	138	0.65
140	10.82	34.20	1.58	182	400	8.05	34.41	0.28	26.83	123	0.78
168	10.76	34.33	1.12	171	500	(6.90)	(34.41)		(26.99)	(108)	(0.90)
206	10.20	34.42	0.87	155							
272	9.68	34.48	0.73	143							
354	8.52	34.42	0.36	129							
473	7.24	34.41	0.21	113							

120.80

STRANGER; June 18, 1958; 1118 GCT; 26°35'N, 117°48.5'W; sounding, 2100 fm; wind, 330°, force 5; weather, cloudy; sea, rough; wire angle, 05°.

0	19.56	33.82	5.10	392	0	19.56	33.82	5.10	24.00	392	0.00
10	19.58	33.84	4.95	392	10	19.58	33.84	4.95	24.00	392	0.04
29	19.52	33.84	5.12	389	20	19.56	33.84	5.04	24.01	391	0.08
44	18.95	34.03	5.26	362	30	19.50	33.84	5.16	24.03	389	0.12
54	18.40	33.98	5.29	352	50	18.57	33.99	5.27	24.38	356	0.19
63	18.26	33.99	5.42	349	75	18.10	33.98	5.44	24.49	346	0.28
73	18.13	33.98	5.44	346	100	15.69	33.81	5.29	24.92	304	0.36
92	16.88	33.91	5.47	322	150	10.68	33.59	4.10	25.75	225	0.50
106	14.75	33.74	5.18	290	200	10.00	33.93	2.82	26.14	189	0.60
121	13.48	33.73	4.54	265	250	9.34	34.20	1.76	26.45	159	0.69
144	11.30	33.58	4.42	236	300	8.78	34.17	1.25	26.53	152	0.77
166	10.23	33.75	3.67	206	400	7.86	34.19	0.46	26.68	137	0.92
208	9.87	34.02	2.46	180	500	6.90	34.21	0.20	26.83	123	1.06
257	9.21	34.20	1.66	156							
335	8.44	34.15	0.96	148							
431	7.55	34.20	0.32	132							
563	6.25	34.21	0.19	114							

137.40

STRANGER; June 7, 1958; 1730 GCT; 24°58.5'N, 113°22'W; sounding, 1500 fm; wind, 320°, force 6; weather, clear; sea, very rough; wire angle, 18°.

0	19.75	33.94	5.01	389	0	19.75	33.94	5.01	24.03	389	0.00
9	19.74	33.95	4.83	387	10	19.74	33.95	4.83	24.06	386	0.04
32	18.99	33.86	5.06	375	20	19.74	33.95	4.83	24.06	386	0.08
42	16.84	33.77	5.58	333	30	19.74	33.95	4.83	24.06	386	0.12
55	15.12	33.72	5.22	298	50	15.70	33.73	5.42	24.86	310	0.18
64	14.54	33.76	4.61	284	75	13.22	33.77	3.95	25.42	257	0.26
72	13.42	33.75a)	4.12	262	100	12.12	33.99	2.62	25.80	220	0.32
90	12.46	33.86a)	3.20	237	150	11.17	34.25	1.80	26.19	184	0.42
107	11.99	34.04a)	2.32	214	200	10.47	34.44	1.09	26.46	158	0.51
120	11.82	34.14a)	2.13	204	250	9.90	34.54	0.70	26.64	141	0.58
142	11.32	34.21a)	1.96	190	300	9.43	34.55	0.38	26.72	134	0.66
176	10.77	34.41a)	1.19	166	400	8.16	34.51		26.88	118	0.78
212	10.32	34.45	1.02	155	500	7.25	34.50		27.02	105	0.90
266	9.88	34.58	0.42	138	600	(6.26)	(34.49)		(27.14)	(93)	(1.01)
347	8.77	34.51	0.36	127							
453	7.67	34.51	1.23u	111							
595	6.31	34.49	0.32	93							

a) Salinity bottle numbers from 72 to 176 meters, inclusive, appear to have been entered in reverse order on the original data sheet. Since standard handling and titrating procedures were used, present order is assumed to be correct.

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
50.47-B	VI-15	0135	39°46.0'	123°54.0'	55	300°	2	partly cloudy	rough	10.92	33.35	8.50	33.77
50.55-B	15	0825	39°30.0'	124°30.0'	1200	320°	7	clear	very high	14.24	32.68	11.88	32.81
50.60-B	15	1145	39°20.0'	124°52.0'	1600	330°	7	clear	high	13.68	32.70	12.78	32.76
53.52-B	14	1850	39°02.0'	123°51.0'	60	310°	4	clear	very rough	11.79	33.42	8.91	33.58
53.55-B	14	1640	38°56.0'	124°04.5'	650	330°	5	clear	very rough	13.46	33.08	10.56	33.03
53.60-B	14	1225	38°46.0'	124°26.5'	1800	330°	7	partly cloudy	high	15.28	32.77	11.38	32.88
57.51-B	13	2305	38°30.0'	123°22.0'	55	300°	4	partly cloudy	very rough	10.56	33.54	8.92	33.75
57.55-B	14	0145	38°22.0'	123°39.5'	400	320°	7	clear	high	12.56	33.04	11.08	33.10
57.60-B	14	0440	38°12.0'	124°02.0'	1900	320°	7	clear	high	15.07	32.91	12.77	32.96
60.52-B	12	0515	37°53.5'	123°02.0'	43	300°	6	partly cloudy	very rough	11.45	33.24	9.32	33.73
60.60-B	11	2315	37°37.0'	123°37.0'	1800	320°	6	cloudy	very rough	15.58	32.81	10.72	33.23
60.70-B	11	1705	37°20.0'	124°21.0'	2200	310°	6	cloudy	high	16.08	32.89	10.02	33.44
60.80-B	11	1045	36°59.0'	125°06.0'	2400	320°	7	cloudy	very rough	17.14	32.86	12.69	32.90
63.52-B	9	2115	37°19.0'	122°36.0'	49	300°	4	cloudy	moderate	14.66	32.57	10.80	33.35
63.55-B	9	2325	37°14.0'	122°49.5'	150	280°	3	cloudy	moderate	15.41	32.81	10.68	33.40
63.60-B	10	0215	37°02.5'	123°10.5'	1400	280°	4	partly cloudy	rough	17.71	32.73	11.98	33.18
63.70-B	10	0755	36°43.0'	123°55.0'	2100	300°	4	partly cloudy	rough	17.26	32.88	14.12	33.18
63.80-B	10	1425	36°23.0'	124°37.5'	2400	320°	5	overcast	rough	17.16	32.95	13.64	33.04
63.90-B	10	2020	36°01.0'	125°23.0'	2500	320°	5	cloudy	very rough	18.01	33.16	14.75	33.19

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
67.50-B	VI-9	1535	36°49.0'	122°04.5'	57	calm		cloudy	moderate	13.20	33.17	9.96	33.64
67.55-B	9	1250	36°39.0'	122°26.0'	1150	280°	3	cloudy	moderate	17.44	32.52	10.34	33.44
67.60-B	9	0910	36°26.5'	122°52.5'	1650	300°	4	partly cloudy	moderate	17.39	32.94	10.54	33.41
67.70-B	9	0410	36°08.0'	123°30.0'	1400	300°	4	cloudy	rough	17.24	32.90	13.32	32.95
67.80-B	8	2300	35°48.0'	124°12.0'	2200	280°	5	cloudy	rough	17.80	33.06	13.14	33.01
67.90-B	8	1750	35°28.0'	124°55.0'	2400	280°	4	cloudy	rough	18.20	-	14.60	33.21
70.52-B	7	1310	36°08.5'	121°50.0'	350	320°	1	partly cloudy	slight	12.45	33.57	10.08	33.72
70.60-B	7	1846	35°53.0'	122°23.0'	1750	280°	3	partly cloudy	moderate	17.16	33.07	12.32	33.13
70.70-B	7	2350	35°33.0'	123°06.0'	2100	270°	3	partly cloudy	moderate	18.20	32.41	11.83	32.94
70.80-B	8	0500	35°13.0'	123°48.0'	2200	260°	4	clear	moderate	17.87	32.90	13.68	33.02
73.51-B	7	0745	35°35.5'	121°20.0'	125	320°	3	partly cloudy	moderate	11.57	33.64	9.70	33.69
73.55-B	7	0510	35°27.5'	121°37.5'	540	320°	3	partly cloudy	moderate	13.00	33.46	10.66	33.37
73.60-B	7	0205	35°18.0'	121°58.5'	1300	260°	2	partly cloudy	moderate	16.80	33.08	12.56	33.31
73.70-B	6	2045	34°58.0'	122°35.0'	2200	-	1	partly cloudy	slight	17.23	33.03	12.14	33.12
73.80-B	6	1550	34°38.0'	123°21.5'	2150	-	1	partly cloudy	moderate	17.22	32.92	12.80	32.89
73.90-B	6	0950	34°19.0'	124°03.0'	2300	270°	2	partly cloudy	slight	18.22	33.22	14.57	33.21
77.50-B	5	0500	35°04.5'	120°52.0'	75	-	1	partly cloudy	smooth	14.80	33.46	11.86	33.60
77.55-B	5	0805	34°54.5'	121°13.0'	300	320°	2	partly cloudy	smooth	16.09	33.35	-	-
77.60-B	5	1125	34°44.0'	121°34.0'	500	270°	3	cloudy	slight	15.57	33.46	-	-

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TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
77.70-B	VI-5	1710	34°24.0'	122°16.0'	2100	270°	3	partly cloudy	moderate	16.74	33.29	10.54	33.36
77.80-B	5	2219	34°04.0'	122°57.0'	2300	300°	3	partly cloudy	moderate	17.79	33.03	14.83	33.20
77.90-B	6	0405	33°45.5'	123°38.0'	2400	240°	3	partly cloudy	slight	18.09	33.30	15.27	33.24
82.47-O	7	1310	34°16.0'	119°57.0'	310	260°	3	clear	moderate	13.80	33.66	10.44	33.69
83.40-O	7	1752	34°14.0'	119°21.5'	12	-	1	clear	slight	11.89	33.63	-	-
83.43-O	7	1605	34°08.0'	119°34.0'	132	-	1	clear	slight	14.26	33.67	-	-
83.51-O	7	0850	33°52.0'	120°06.0'	58	260°	2	partly cloudy	moderate	14.34	33.58	10.98	33.61
83.55-O	7	0608	33°44.0'	120°24.0'	532	260°	2	clear	slight	16.18	33.53	10.65	33.46
83.60-O	7	0311	33°33.5'	120°43.0'	750	270°	1	clear	slight	15.82	33.20	12.29	33.26
83.65-O	7	0004	33°24.0'	121°05.0'	2000+	-	1	partly cloudy	slight	17.50	33.05	15.73	33.41
83.70-O	6	2110	33°16.0'	121°28.0'	2000+	-	1	partly cloudy	slight	17.12	33.18	15.20	33.26
83.75-O	6	1850	33°07.5'	121°44.0'	2000+	-	1	partly cloudy	slight	17.18	33.24	14.52	33.19
83.80-O	6	1510	32°56.0'	122°08.0'	2200	280°	1	cloudy	slight	17.34	33.19	15.39	33.47
83.85-O	6	1200	32°45.0'	122°28.0'	2000	-	1	cloudy	slight	17.56	33.24	14.97	33.33
83.90-O	6	0853	32°34.5'	122°48.0'	2000+	-	1	partly cloudy	slight	18.29	33.35	15.79	33.55
87.35-O	9	0000	33°50.0'	118°37.5'	300	280°	3	partly cloudy	moderate	16.18	33.51	11.13	33.63
87.40-O	9	0320	33°40.0'	118°58.5'	450	280°	4	clear	rough	17.19	33.55	10.79	33.58
87.45-O	9	0650	33°29.5'	119°18.0'	917	280°	4	clear	rough	15.64	33.78	9.76	33.58
87.50-O	9	1205	33°20.0'	119°39.0'	40	280°	5	clear	rough	16.18	33.59	10.44	33.66

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
87.55-O	VI-9	1615	33°10.0'	120°01.0'	600+	290°	5	clear	rough	16.18	33.58	11.75	33.31
87.60-O	9	2045	33°00.0'	120°21.0'	500+	290°	4	clear	rough	16.54	33.09	14.45	33.17
87.65-O	10	0205	32°47.0'	120°44.0'	2000+	290°	5	partly cloudy	very rough	17.74	33.23	14.94	33.19
87.70-O	10	0420	32°36.0'	121°02.0'	2100	290°	5	partly cloudy	very rough	17.72	33.18	14.45	33.22
87.75-O	10	0835	32°24.0'	121°27.0'	2400	290°	5	partly cloudy	very rough	18.02	33.33	15.90	33.65
87.80-O	10	1205	32°14.0'	121°48.0'	2000+	290°	5	partly cloudy	very rough	18.50	33.51	16.09	33.53
87.85-O	10	1500	32°06.5'	122°02.5'	2000+	290°	5	cloudy	very rough	18.38	33.57	16.16	33.53
87.90-O	10	1815	31°58.0'	122°19.0'	2000+	290°	5	cloudy	very rough	18.46	33.48	15.80	33.44
90.28-O	12	1605	33°28.5'	117°46.5'	200	-	1	partly cloudy	moderate	13.34	33.55	10.02	33.73
90.30-O	12	1445	33°25.0'	117°55.0'	300	-	1	partly cloudy	rough	14.27	33.55	10.04	33.71
90.37-O	12	1030	33°11.0'	118°24.0'	600	310°	4	clear	rough	17.82	33.60	10.58	33.52
90.50-O	12	0115	32°42.0'	119°13.0'	85	300°	4	clear	rough	16.98	33.48	15.49	33.50
90.55-O	11	2225	32°32.5'	119°34.5'	605	300°	4	clear	rough	17.13	33.45	14.18	33.30
90.60-O	11	1935	32°24.0'	119°54.0'	485	300°	4	clear	rough	17.22	33.40	-	-
90.65-O	11	1610	32°15.0'	120°18.0'	2000	290°	4	cloudy	very rough	16.75	33.26	-	-
90.70-O	11	1200	32°01.5'	120°45.0'	2000	310°	4	partly cloudy	rough	18.10	33.45	16.62	33.42
90.75-O	11	0850	31°53.0'	121°02.0'	2200	310°	4	partly cloudy	rough	18.35	33.53	16.18	33.48
90.80-O	11	0540	31°45.0'	121°19.0'	2000	310°	4	partly cloudy	rough	17.86	33.38	15.38	33.39
90.85-O	11	0305	31°37.0'	121°35.0'	2300	310°	4	partly cloudy	rough	18.50	33.48	16.24	33.49

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
93.27-O	VI-20	0405	32°56.0'	117°19.0'	100	290°	1	clear	slight	13.01	33.57	10.08	33.68
93.30-O	20	0600	32°50.0'	117°31.5'	425	290°	1	clear	moderate	-	-	10.67	33.60
93.35-O	20	0910	32°40.0'	117°52.0'	300	280°	2	clear	moderate	18.45	33.53	10.96	33.47
93.40-O	20	1225	32°32.0'	118°16.5'	925	280°	2	partly cloudy	moderate	18.01	33.58	11.30	33.50
93.45-O	20	1505	32°22.0'	118°36.5'	900	280°	4	partly cloudy	very rough	16.62	33.50	12.15	33.39
93.50-O	20	1800	32°12.0'	118°54.0'	800	280°	4	partly cloudy	very rough	16.58	33.48	13.00	33.45
93.55-O	20	2120	32°00.0'	119°14.0'	880	280°	6	partly cloudy	very rough	16.86	33.52	13.60	33.46
93.60-O	21	0030	31°50.0'	119°34.0'	1220	290°	5	partly cloudy	very rough	17.10	33.48	13.32	33.44
93.65-O	21	0330	31°42.5'	119°57.5'	2000+	280°	3	clear	rough	17.48	33.22	14.74	33.15
93.70-O	21	0605	31°32.0'	120°16.0'	2000+	280°	3	clear	rough	18.23	33.35	14.86	33.33
93.75-O	21	0850	31°21.0'	120°35.0'	2000+	280°	3	clear	rough	18.70	33.53	16.06	33.53
93.80-O	21	1140	31°10.0'	120°55.0'	2000+	280°	3	partly cloudy	rough	18.78	33.60	16.12	33.42
93.85-O	21	1430	31°01.0'	121°15.0'	2000+	280°	2	cloudy	moderate	18.88	33.49	15.72	33.38
93.90-O	21	1710	30°49.0'	121°33.5'	2000+	280°	2	cloudy	moderate	18.74	33.40	14.95	33.30
97.30-O	23	0955	32°15.5'	117°09.5'	33	-	1	clear	slight	12.58	33.50	-	-
97.35-O	23	0710	32°05.0'	117°28.0'	400	280°	3	clear	rough	18.91	33.61	10.97	33.54
97.40-O	23	0430	31°54.0'	117°47.0'	500	280°	4	clear	rough	18.64	33.62	12.40	33.49
97.45-O	23	0055	31°41.0'	118°06.5'	600	280°	4	clear	very rough	18.40	33.50	14.22	33.49
97.50-O	22	2155	31°33.0'	118°28.5'	1300	280°	4	clear	rough	18.38	33.55	15.41	33.37

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
97.55-O	VI-22	1915	31°24.5'	118°48.0'	250	280°	4	clear	rough	18.14	33.51	14.38	33.37
97.60-O	22	1605	31°14.0'	119°10.0'	1900	280°	3	partly cloudy	rough	17.71	33.39	14.68	33.35
97.65-O	22	1250	31°06.0'	119°31.0'	1900	280°	2	partly cloudy	rough	17.82	33.28	16.07	33.43
97.70-O	22	0945	30°55.5'	119°50.5'	1900+	280°	2	partly cloudy	moderate	18.80	33.49	15.96	33.46
97.75-O	22	0640	30°45.0'	120°11.0'	1900+	280°	2	partly cloudy	moderate	18.72	33.48	16.11	33.46
97.80-O	22	0330	30°35.0'	120°31.0'	2000+	280°	2	partly cloudy	moderate	19.16	33.55	15.72	33.35
97.85-O	22	0030	30°25.0'	120°50.5'	2000	280°	3	partly cloudy	moderate	19.12	33.57	16.37	33.49
97.90-O	21	2130	30°16.0'	121°10.0'	2000+	290°	2	partly cloudy	moderate	19.04	33.54	15.41	33.23
100.29-O	23	1540	31°41.0'	116°45.5'	80	-	1	fog	moderate	12.52	33.50	10.60	-
100.33-O	23	1800	31°34.0'	117°00.0'	650	280°	2	overcast	moderate	14.96	33.52	11.72	33.49
100.40-O	23	2205	31°21.0'	117°27.0'	1140	280°	5	cloudy	rough	18.46	33.59	-	-
100.45-O	24	0125	31°11.0'	117°47.0'	1100	280°	5	partly cloudy	very rough	18.47	33.50	-	-
100.50-O	24	0435	31°01.0'	118°07.0'	800	280°	5	cloudy	very rough	18.56	33.60	15.08	-
100.55-O	24	0755	30°51.0'	118°26.0'	1300	280°	6	cloudy	very rough	18.16	33.46	16.09	33.39
100.60-O	24	1110	30°42.0'	118°45.0'	1500	280°	6	cloudy	very rough	18.56	33.53	17.46	33.39
100.65-O	24	1425	30°33.0'	119°03.0'	1300	280°	5	overcast	very rough	18.60	33.48	16.22	33.41
100.75-O	24	2158	30°11.5'	119°45.0'	2000+	280°	5	overcast	high	19.40	33.82	16.94	33.69
100.80-O	25	0135	30°01.0'	120°07.0'	2000+	280°	5	overcast	high	19.22	33.68	17.09	33.69
100.85-O	25	0357	29°53.0'	120°25.5'	2000+	280°	5	overcast	very rough	19.32	33.51	16.78	33.64

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
100.90-O	VI-25	0640	29°47.0'	120°40.0'	2000+	280°	5	overcast	very rough	19.24	33.59	15.80	33.33
103.30-O	16	1840	31°05.5'	116°25.0'	39	310°	2	partly cloudy	moderate	12.20	33.64	10.28	33.77
103.35-O	16	2140	30°55.0'	116°45.0'	1120	310°	2	partly cloudy	moderate	16.66	33.53	11.87	33.42
103.40-O	17	0045	30°45.5'	117°03.5'	1040	310°	3	cloudy	rough	18.39	33.59	16.42	33.47
103.45-O	17	0345	30°34.0'	117°25.0'	1250	310°	3	cloudy	rough	18.36	33.56	16.86	33.49
103.50-O	17	0700	30°22.5'	117°46.5'	1900	310°	3	cloudy	rough	18.36	33.48	16.45	33.53
103.55-O	17	1005	30°11.0'	118°07.5'	1083	310°	3	cloudy	rough	18.55	33.51	17.26	33.60
103.60-O	17	1240	29°59.0'	118°28.5'	1800	310°	3	overcast	rough	18.60	33.51	16.42	33.50
107.32-O	16	1305	30°26.5'	116°11.0'	250	310°	3	overcast	moderate	13.94	33.48	10.67	33.49
107.35-O	16	1045	30°20.5'	116°23.5'	900	310°	3	cloudy	rough	17.19	33.55	14.40	33.54
107.40-O	16	0750	30°10.5'	116°43.5'	1550	310°	3	cloudy	rough	17.91	33.60	14.36	33.48
107.45-O	16	0440	30°01.0'	117°04.0'	1250	310°	3	cloudy	rough	18.57	33.60	16.47	33.48
107.50-O	16	0130	29°50.5'	117°24.0'	1500	310°	3	cloudy	rough	18.62	33.62	15.86	33.33
107.55-O	15	2230	29°43.0'	117°43.0'	1750	310°	3	partly cloudy	rough	18.44	33.62	18.50	33.68
110.33-O	14	1948	29°50.5'	115°52.0'	60	310°	4	partly cloudy	moderate	15.34	33.53	10.74	33.56
110.35-O	14	2110	29°46.5'	116°01.0'	500	310°	3	partly cloudy	rough	15.94	33.51	12.28	33.49
110.40-O	15	0030	29°36.5'	116°21.0'	1100	310°	4	partly cloudy	rough	17.96	33.58	-	-
110.45-O	15	0330	29°26.0'	116°41.0'	500	310°	4	cloudy	rough	18.74	33.72	18.31	33.68
110.50-O	15	0635	29°15.0'	117°03.5'	1900	310°	4	clear	rough	18.69	33.73	18.04	33.71

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
110.55-O	VI-15	0950	29°05.0'	117°26.0'	1900	310°	4	clear	rough	18.15	33.70	17.88	33.64
110.60-O	15	1250	28°54.0'	117°49.5'	2000	310°	3	cloudy	rough	18.82	33.68	17.44	33.60
110.70-S	22	0434	28°35.0'	118°15.0'	2150	320°	4	partly cloudy	rough	19.31	33.70	17.76	33.64
110.75-S	22	0137	28°25.5'	118°35.0'	2000	010°	5	partly cloudy	moderate	19.26	33.68	18.93	33.67
110.80-S	21	2255	28°16.0'	118°57.0'	2000	010°	4	cloudy	moderate	19.34	33.66	18.08	33.58
113.30-S	23	0835	29°23.0'	115°17.5'	34	calm		fog	slight	16.13	33.67	11.06	33.79
113.35-S	23	0455	29°18.0'	115°43.5'	1000	330°	4	clear	moderate	17.22	33.60	14.44	33.52
113.40-S	23	0155	29°02.0'	116°03.0'	750	320°	4	cloudy	moderate	17.64	33.58	11.86	33.63
113.45-S	22	2302	28°54.0'	116°22.0'	1350	340°	3	cloudy	moderate	17.70	33.57	16.02	33.53
113.50-S	22	2042	28°51.0'	116°36.5'	2000	340°	3	overcast	rough	18.94	33.63	17.04	33.64
113.55-S	22	1751	28°39.0'	116°55.0'	1900	330°	4	cloudy	rough	18.51	33.63	17.65	33.58
113.60-S	22	1452	28°26.0'	117°15.5'	2000	340°	4	cloudy	moderate	18.85	33.67	17.12	33.53
113.65-S	22	1200	28°14.0'	117°35.0'	2150	320°	4	cloudy	moderate	19.26	33.71	17.82	33.58
113.70-S	22	0914	28°02.0'	117°55.5'	1900	340°	4	partly cloudy	rough	19.02	33.61	17.64	33.58
117.26-S	20	0223	28°58.0'	114°41.0'	40	290°	4	cloudy	rough	17.94	33.73	10.84	33.86
117.30-S	20	0425	28°46.0'	114°55.5'	60	340°	4	cloudy	rough	16.83	33.58	12.84	33.58
117.35-S	20	0708	28°38.0'	115°16.0'	120	340°	4	partly cloudy	moderate	17.46	33.55	13.24	33.51
117.40-S	20	0929	28°28.0'	115°35.5'	540	320°	3	clear	moderate	17.42	33.59	12.82	33.53
117.45-S	20	2310	28°18.0'	115°55.0'	1600	340°	4	rain	moderate	17.03	33.55	15.01	33.56

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TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
117.50-S	VI-21	0200	28°06.5'	116°15.0'	2500	340°	4	cloudy	rough	18.35	33.58	16.74	33.57
117.55-S	21	0425	27°56.0'	116°35.5'	2000	320°	3	partly cloudy	moderate	19.16	33.68	16.36	33.60
117.60-S	21	0724	27°45.5'	116°55.0'	2000+	320°	3	missing	moderate	19.26	33.66	17.70	33.53
117.65-S	21	1007	27°35.0'	117°15.0'	2000+	340°	4	partly cloudy	moderate	19.38	33.63	17.79	33.57
117.70-S	21	1241	27°24.5'	117°35.5'	2000	340°	4	partly cloudy	moderate	19.31	33.62	17.88	33.58
118.39-S	20	1130	28°18.5'	115°24.0'	147	320°	2	cloudy	moderate	18.22	33.62	-	-
119.33-S	19	1622	28°19.0'	114°54.0'	58	330°	5	partly cloudy	rough	17.11	33.62	16.22	33.62
120.25-S	19	2100	28°23.0'	114°14.5'	40	320°	5	cloudy	rough	17.15	33.68	11.44	33.57
120.30-S	19	1839	28°13.0'	114°34.0'	48	330°	4	partly cloudy	moderate	16.84	33.62	12.54	33.65
120.35-S	19	1310	28°04.0'	114°52.0'	41	350°	4	partly cloudy	rough	17.57	33.68	13.66	33.58
120.40-S	19	1050	27°56.5'	115°14.0'	24	290°	5	clear	very rough	18.87	33.82	16.29a)	33.66a)
120.45-S	19	0831	27°47.0'	115°33.0'	650	320°	5	overcast	very rough	17.12	33.73	11.05	33.78
120.55-S	19	0147	27°28.0'	116°13.0'	2350	340°	5	cloudy	very rough	19.22	33.72	-	-
120.60-S	18	2244	27°18.0'	116°31.5'	2050	330°	4	cloudy	moderate	19.06	33.70	16.95	33.45
120.65-S	18	2027	27°07.5'	116°50.0'	2150	330°	5	cloudy	rough	19.28	33.68	-	-
120.70-S	18	1710	26°56.0'	117°11.0'	2100	340°	4	overcast	rough	19.45	33.80	19.17	34.13
120.75-S	18	1432	26°46.0'	117°30.0'	2250	330°	4	overcast	rough	19.44	33.80	18.70	34.02

a) Depth, 20 meters.

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
120.85-S	VI-18	0815	26°24.0'	118°07.0'	2200	330°	4	overcast	rough	19.06	33.79	-	-
120.90-S	18	0505	26°13.0'	118°26.5'	2250	330°	4	overcast	rough	19.78	33.89	19.17	34.18
123.37-S	17	0519	27°24.0'	114°39.5'	35	270°	2	clear	moderate	14.74	33.78	12.01	33.86
123.42-S	17	0740	27°12.5'	115°01.0'	1500	340°	5	clear	rough	18.14	33.74	15.74	33.63
123.50-S	17	1137	26°55.0'	115°32.5'	1930	320°	4	overcast	moderate	18.45	33.77	16.37	33.72
123.55-S	17	1415	26°44.0'	115°53.0'	2100	320°	4	cloudy	moderate	18.56	33.72	16.90	33.64
123.60-S	17	1645	26°33.5'	116°14.0'	2100	320°	4	overcast	rough	19.00	33.74	17.78	33.71
127.34-S	16	2345	26°54.0'	114°06.0'	41	270°	4	haze	moderate	15.76	33.86	12.94	34.09
127.40-S	16	2023	26°38.5'	114°31.5'	1950	320°	4	partly cloudy	moderate	19.42	33.86	18.60	33.82
127.45-S	16	1724	26°27.5'	114°51.0'	1950	320°	4	cloudy	moderate	19.36	33.88	19.14	33.91
127.50-S	16	1450	26°17.5'	115°10.0'	1600	320°	4	overcast	moderate	19.46	33.71	18.85	33.78
130.30-S	15	2152	26°29.0'	113°29.0'	41	270°	4	partly cloudy	slight	17.84	33.94	15.37	34.01
130.35-S	16	0043	26°18.0'	113°48.5'	190	290°	4	clear	moderate	16.57	33.79	12.72	33.78
130.40-S	16	0337	26°07.0'	114°07.0'	1350	290°	4	clear	moderate	16.34	33.68	14.46	33.67
130.45-S	16	0650	25°56.0'	114°27.0'	1900	320°	4	clear	moderate	18.68	33.76	18.06	33.75
130.50-S	16	0954	25°43.5'	114°47.0'	2100	320°	4	partly cloudy	moderate	19.78	33.86	19.86	34.00
133.25-S	8	1842	26°03.0'	112°47.5'	45	320°	4	clear	rough	16.36	33.93	14.10	34.13
133.30-S	8	1608	25°51.5'	113°06.5'	106	320°	4	partly cloudy	very rough	19.18	33.96	14.80	34.08
133.35-S	8	1305	25°39.5'	113°29.0'	125	320°	6	partly cloudy	very rough	18.38	33.83	14.40	33.64

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TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
133.40-S	VI-8	1018	25°30.0'	113°47.5'	2350	320°	6	cloudy	high	18.28	33.85	17.00	33.71
133.45-S	8	0740	25°20.5'	114°05.5'	1800	320°	6	partly cloudy	high	18.76	33.86	17.65	33.74
133.50-S	8	0445	25°11.0'	114°23.5'	1700	330°	6	partly cloudy	high	19.18	33.88	19.40	34.20
137.23-S	7	0804	25°32.0'	112°18.0'	30	320°	4	clear	moderate	19.87	34.19	14.76	34.26
137.30-S	7	1110	25°19.0'	112°44.0'	90	320°	6	clear	rough	19.96	34.14	14.76	34.14
137.35-S	7	1430	25°09.0'	113°03.0'	650	320°	6	clear	very rough	19.18	33.95	15.24	33.80
137.45-S	7	2025	24°48.5'	113°41.5'	1100	320°	6	partly cloudy	very rough	19.97	33.95	16.48	33.78
137.50-S	7	2310	24°38.5'	114°00.0'	2100	320°	6	partly cloudy	high	19.36	33.88	18.61	34.20

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
STRANGER; July 6, 1958; 1725 GCT; 41°48'N, 124°28'W; sounding, 71 fm; wind, calm; weather, fog; sea, rough; wire angle, 00°.											40.38
0	11.98	32.99		292	0	11.98	32.99		25.05	292	0.00
10	10.72	33.37		241	10	10.72	33.37		25.58	241	0.03
30	9.41	33.60		204	20	9.96	33.52		25.82	218	0.05
49	8.80	33.70		187	30	9.41	33.60		25.98	204	0.07
73	8.37	33.82		172	50	8.78	33.70		26.16	186	0.11
98	7.87	33.91		158	75	8.32	33.83		26.34	170	0.15
					100	(7.85)	(33.91)		(26.47)	(157)	(0.20)
STRANGER; July 6, 1958; 1925 GCT; 41°43'N, 124°38'W; sounding, 400 fm; wind, 330°, force 4; weather, fog; sea, very rough; wire angle, 23°.											40.40
0	13.08	32.84		322	0	13.08	32.84		24.74	322	0.00
8	13.05	32.85		321	10	13.04	32.85		24.75	321	0.03
27	10.45	32.92		271	20	13.02	32.85		24.76	320	0.06
40	9.64	33.13		242	30	10.22	32.94		25.35	266	0.09
48	9.30	33.30		224	50	9.28	33.32		25.78	223	0.14
57	9.22	33.42		214	75	8.80	33.57		26.06	196	0.19
65	9.02	33.53		203	100	8.42	33.70		26.21	182	0.24
82	8.68	33.59		194	150	7.90	33.92		26.46	157	0.33
124p	8.18	33.82		169	200	7.26	33.99		26.61	144	0.40
184p	7.44	33.99		146	250	6.58	34.00		26.71	134	0.48
258p	6.41	34.00		132	300	6.06	34.03		26.80	126	0.54
359p	5.66	34.11		115							
STRANGER; July 6, 1958; 2233 GCT; 41°34'N, 124°59'W; sounding, 750 fm; wind, 360°, force 5; weather, fog; sea, high; wire angle, 03°.											40.45
0	14.86	32.59		376	0	14.86	32.59		24.17	376	0.00
10	14.82	32.61		373	10	14.82	32.61		24.20	373	0.04
30	10.94	32.97		275	20	14.81	32.61		24.20	373	0.07
44	10.06	33.25		240	30	10.94	32.97		25.23	275	0.11
55	9.66	33.35		227	50	9.87	33.30		25.67	233	0.16
65	9.15	33.48		209	75	8.88	33.57		26.04	198	0.21
74	8.88	33.57		198	100	8.39	33.74		26.24	178	0.26
93	8.53	33.68		184	150	7.80	33.90		26.46	158	0.34
107	8.26	33.79		173	200	7.22	33.98		26.60	144	0.42
121	8.14	33.87		164	250	6.60	34.02		26.72	133	0.49
142	7.88	33.89		160	300	6.10	34.04		26.81	125	0.56
171	7.50	33.95		150	400	5.61	34.12		26.92	114	0.68
206	7.18	33.98		143	500	5.18	34.18		27.03	104	0.79
257	6.46	34.02		131							
336	5.84	34.07		120							
436	5.47	34.15		110							
577	4.76	34.22		97							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

40.50 STRANGER; July 7, 1958; 0158 GCT; 41°24'N, 125°21'W; sounding, 1750 fm; wind, 360°, force 5; weather, fog; sea, high; wire angle, 10°.

0	15.22	32.76	370	0	15.22	32.76		24.22	370	0.00
10	15.20	32.75	371	10	15.20	32.75		24.22	371	0.04
29	12.38	32.91	304	20	15.10	32.75		24.24	369	0.07
43	9.99	33.17	244	30	10.78	32.96		25.05	292	0.11
53	9.71	33.21	237	50	9.77	33.20		25.60	239	0.16
63	9.46	33.34	224	75	9.19	33.46		25.90	211	0.22
72	9.27	33.43	214	100	8.41	33.70		26.21	181	0.27
90	8.62	33.63	189	150	7.90	33.91		26.46	158	0.35
104	8.36	33.73	178	200	7.33	33.98		26.60	145	0.43
117	8.16	33.81	170	250	6.65	34.02		26.72	133	0.50
139	7.98	33.89	161	300	6.35	34.06		26.79	127	0.57
166	7.76	33.93	155	400	5.58	34.09		26.91	115	0.69
200	7.33	33.98	145	500	5.06	34.18		27.04	103	0.80
248	6.64	34.02	134							
322	6.22	34.07	124							
415	5.46	34.10	114							
536p	4.95	34.24	97							

40.60 STRANGER; July 7, 1958; 0722 GCT; 41°04'N, 126°07'W; sounding, 1700 fm; wind, 330°, force 4; weather, overcast; sea, very rough; wire angle, 16°.

0	16.3	-		0	16.3	(32.57)	(23.84)	(408)	(0.00)
9	16.28	32.57	408	10	16.28	32.57	23.84	408	0.04
28	15.48	32.61	388	20	16.22	32.58	23.86	405	0.08
42	11.52	32.67	307	30	14.66	32.62	24.23	370	0.12
51	11.05	32.84	286	50	11.10	32.82	25.09	288	0.19
60	10.68	32.98	270	75	10.32	33.20	25.52	247	0.25
68	10.42	33.16	252	100	9.58	33.39	25.79	222	0.31
85	10.12	33.26	240	150	8.07	33.86	26.40	164	0.41
97	9.75	33.35	228	200	7.61	33.94	26.52	152	0.49
109	8.90	33.55	200	250	6.99	34.02	26.67	138	0.56
130	8.50	33.71	182	300	6.39	34.04	26.77	128	0.63
144	8.12	33.85	166	400	5.50	34.10	26.93	113	0.76
189	7.78	33.92	156	500	5.02	34.14	27.01	106	0.87
233	7.21	34.00	142						
306	6.32	34.05	127						
397	5.54	34.10	114						
523	4.96	34.16	103						

40.70 STRANGER; July 7, 1958; 1408 GCT; 40°43'N, 126°53'W; sounding, 1750 fm; wind, 340°, force 5; weather, overcast; sea, high; wire angle, 05°.

0	16.59	32.77	400	0	16.59	32.77	23.92	400	0.00
10	16.58	32.75	401	10	16.58	32.75	23.91	401	0.04
29	13.40	32.88	326	20	16.58	32.75	23.91	401	0.08
58	11.70	32.96	288	30	13.33	32.88	24.70	325	0.12
67	11.46	32.94	286	50	12.04	32.95	25.00	296	0.18
77	11.30	33.01	278	75	11.38	32.98	25.16	282	0.25
90	10.64	33.13	258	100	9.21	33.31	25.78	223	0.32
101	9.18	33.32	221	150	8.08	33.62	26.20	182	0.42
114	8.50	33.40	205	200	7.58	33.90	26.50	154	0.50
133	8.25	33.48	196	250	7.07	33.93	26.59	146	0.58
149	8.08	33.62	182	300	6.59	33.98	26.70	135	0.65
175	7.78	33.86	160	400	5.98	34.14	26.91	116	0.78
197	7.58	33.90a)	154	500	5.34	34.18	27.01	106	0.90
246	7.12	33.93	146						
323	6.36	34.00	151						
426	5.85	34.17	113						
561	4.84	34.18	100						

a) Salinity bottle number was not recorded on the data sheet. Since standard handling and titrating procedures were used, this salinity value is assumed to be listed correctly.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

40.80

STRANGER; July 7, 1958; 1922 GCT; 40°23'N, 127°38'W; sounding, 1700 fm; wind, 360°, force 6; weather, overcast; sea, high; wire angle, 11°.

0	16.70	32.87	394	0	16.70	32.87	23.98	394	0.00
9	16.69	32.97u		10	16.69	32.87	23.98	394	0.04
28	16.69	32.87	394	20	16.69	32.87	23.98	394	0.08
54	12.37	32.86	308	30	16.68	32.87	23.98	394	0.12
65	11.86	32.89	297	50	12.65	32.86	24.82	314	0.19
73	11.63	32.90	292	75	11.62	32.90	25.06	291	0.26
88	11.04	32.96	278	100	10.45	33.10	25.42	257	0.34
101	10.40	33.10	257	150	8.46	33.49	26.04	198	0.44
112	9.70	33.30	231	200	7.72	33.88	26.46	158	0.54
128	8.88	33.44a)	208	250	6.96	33.92	26.60	145	0.61
145	8.58	33.48	200	300	6.35	33.93	26.69	136	0.69
169	8.08	33.70	177						
190	7.86	33.86	162						
234	7.20	33.92	148						
310	6.24	33.93	135						

40.90

STRANGER; July 8, 1958; 0033, 0120 GCT; 40°06'N, 128°15'W; sounding, 2550 fm; wind, 360, force 5; weather, overcast; sea, high; wire angle, 25°, 48°.

0	16.50	32.81	395	0	16.50	32.81	23.97	395	0.00
8	16.48	32.88	390	10	16.48	32.87	24.02	390	0.04
27	16.47	32.83	393	20	16.48	32.86	24.01	391	0.08
39	14.98	32.77	366	30	16.47	32.83	23.99	393	0.12
48	12.56	32.81	315	50	12.32	32.82	24.85	311	0.19
57	11.78	32.85	298	75	10.78	32.96	25.26	272	0.26
65	11.31	32.86	290	100	9.50	33.31	25.73	227	0.32
81	10.50	33.05	262	150	8.18	33.89	26.40	264	0.42
				200	7.68	33.97	26.53	151	0.50
100	9.50	33.31b)	227	250	7.28				
117	8.76	33.62	192	300	6.75				
141	8.30	33.87	167						
174	7.92	33.93	157						
232	7.42	34.02	144						
308	6.68	33.92r							
424c)	6.26	34.11							

43.50

STRANGER; July 6, 1958; 0610 GCT; 40°45'N, 125°08'W; sounding, 1500 fm; wind, 360°, force 4; weather, fog; sea, very rough; wire angle, 20°.

0	14.36	32.74	6.07	354	0	14.36	32.74	6.07	24.39	354	0.00
9	14.26	32.74	6.24	352	10	14.25	32.74	6.24	24.42	352	0.04
28	10.73	32.90	5.91	276	20	12.40	32.83	6.08	24.85	301	0.07
41	10.00	33.17	5.02	245	30	10.50	32.95	5.75	25.28	270	0.10
50	9.79	33.21	4.61	238	50	9.79	33.21	4.61	25.61	238	0.15
59	9.26	33.33	4.49	222	75	8.83	33.50	4.00	25.99	202	0.20
68	9.00	33.44	4.22	209	100	8.28	33.66	3.02	26.21	182	0.25
83	8.62	33.57	3.59	194	150	7.62	33.96	2.45	26.54	151	0.34
96	8.34	33.59	3.24	188	200	7.07	34.02	2.16	26.66	139	0.41
107	8.24	33.80	2.99	172	250	6.80	34.08	1.64	26.74	131	0.48
128	7.98	33.89	2.98	161	300	6.50	34.09	1.36	26.79	127	0.54
150	7.62	33.96	2.45	151	400	5.82	34.18	1.00	26.94	112	0.67
182	7.18	33.99	2.24	142	500	5.28	34.19	0.71	27.02	104	0.78
225	6.94	34.07	1.73	134							
293	6.52	34.09	1.38	127							
375	5.98	34.17	1.03	114							
500	5.28	34.19	0.71	104							

a) Loose bottle cap; value falls on property curve.
b) Salinity bottle number was not recorded on the data sheet. Since standard handling and titrating procedures were used, this salinity value is assumed to be listed correctly.
c) Depth uncertain owing to malfunction of unprotected thermometer.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_3	Z	T	S	O_2	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m
43.60	STRANGER; July 6, 1958; 0005 GCT; 40°25'N, 125°45'W; sounding, 1550 fm; wind, 010°, force 4; weather, fog; sea, high; wire angle, 12°.										
0	12.96	33 06	5.71	304	0	12.96	33.06	5.71	24.92	304	0.00
10	12 93	33 05	5.65	304	10	12.93	33.05	5.65	24.92	304	0.03
29	11.18	33.04	5.12	274	20	12.35	33.04	5.47	25.02	305	0.06
52	9.55	33.29	4.29	229	30	11.05	33.05	5.08	25.27	271	0.09
62	9.23	33.37	3.89	218	50	9.63	33.28	4.38	25.68	232	0.14
71	9.08	33.48	3.66	207	75	9.00	33.53	3.49	25.99	203	0.19
80	8.90	33.58	3.33	198	100	8.46	33.74	3.06	26.24	179	0.24
93	8.62	33.71	3.04	184	150	7.85	33.94	2.74	26.48	156	0.33
105	8.36	33.76	3.07	176	200	7.23	33.98	2.51	26.60	145	0.40
122	8.08	33.84	2.89	166	250	7.22	34.11a)	1.80	26.70	135	0.47
139	7.98	33.91	2.83	159	300	6.54	34.08	1.16	26.79	127	0.54
162	7.72	33.96	2.59	152	400	5.86	34.16	0.77	26.92	114	0.66
182	7.38	33.96	2.53	148	500	5.23	34.21	0.50	27.05	102	0.78
227	7.13	34.05	2.40	138							
290	6.60	34.07	1.24	129							
390	5.95	34.15	0.78	115							
513	5.16	34.22	0.44	101							
43.90	STRANGER; July 8, 1958; 0635 GCT; 39°29.5'N, 127°52'W; sounding, 2400 fm; wind, 360°, force 5; weather, overcast; sea, high; wire angle, 25°.										
0	16.68	32.84		397	0	16.68	32.84		23.95	397	0.00
8	16.68	32.83		397	10	16.68	32.83		23.95	397	0.04
26	16.67	32.86		395	20	16.68	32.85		23.96	396	0.08
39	14.16	32.75		350	30	16.66	32.86		23.97	395	0.12
48	11.88	32.77		306	50	11.78	32.80		24.94	302	0.19
56	11.42	32.89		289	75	9.99	32.99		25.41	258	0.26
64	10.77	32.92		276	100	9.06	33.28		25.78	222	0.32
80	9.72	33.04		250	150	7.98	33.76		26.33	171	0.42
92	9.24	33.24		228	200	7.20	33.94		26.58	147	0.50
106p	8.96	33.30		219	250	6.54	34.01		26.73	133	0.57
128p	8.40	33.58		190	300	5.92	34.04		26.83	123	0.64
161p	7.77	33.82		163	400	5.10	34.06		26.95	112	0.76
221p	6.90	33.98		140							
302p	5.91	34.04		123							
429p	4.92	34.07		109							
47.50	STRANGER; July 5, 1958; 1115 GCT; 40°13'N, 124°31.5'W; sounding, 140 fm; wind, 180°, force 2; weather, fog; sea, moderate; wire angle, 20°.										
0	12.52	33.12	5.34	292	0	12.52	33.12	5.34	25.05	292	0.00
9	12.24	33.14	5.39	285	10	12.23	33.14	5.39	25.13	285	0.03
29	11.28	33.22	4.89	262	20	12.12	33.15	5.35	25.16	282	0.06
47	10.00	33.58	4.33	214	30	11.27	33.24	4.88	25.38	260	0.08
69	8.72	33.74	3.66	182	50	9.90	33.60	4.32	25.90	212	0.13
92	8.01	33.90	2.40	161	75	8.45	33.78	3.40	26.28	175	0.18
116	7.89	33.95	2.00	155	100	7.99	33.92	2.28	26.45	158	0.22
145	7.75	34.00	1.87	150	150	(7.70)	(34.02)	(1.85)	(26.57)	(148)	(0.30)

a) This value results from an unusual feature produced in the salinity curve by inclusion of a bathythermograph feature in the temperature curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T}^{-5}{}_{3}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T}^{-5}{}_{3}$ 10^{-5} cm/g	ΔD dyn. m

47.55

STRANGER; July 5, 1958; 1453 GCT; 40°03.5'N, 124°54'W; sounding, 800 fm; wind, 110°, force 2; weather, fog; sea, high; wire angle, 03°.

0	15.72	32.73	5.75	383	0	15.72	32.73	5.75	24.10	383	0.00
10	15.70	32.81	5.81	377	10	15.70	32.81	5.81	24.16	377	0.04
30	13.08	32.74	6.55	330	20	15.42	32.81	5.90	24.21	372	0.08
44	11.64	32.74	6.48	304	30	13.08	32.74	6.55	24.65	330	0.11
54	11.20	32.80	6.12	292	50	11.39	32.77	6.29	24.99	298	0.17
63	10.72	32.86	5.79	279	75	10.04	33.02	5.44	25.42	257	0.24
71	10.32	32.97	5.52	264	100	8.95	33.26	5.21	25.99	222	0.30
90	9.26	33.24	5.25	236	150	8.38	33.79	3.20	26.29	174	0.40
105	8.81	33.33	5.21	215	200	7.74	33.98	2.58	26.54	151	0.49
140p	8.50	33.70	3.36	183	250	7.18	34.04	2.02	26.66	139	0.56
183p	7.98	33.95	2.75	156	300	6.77	34.05	1.55	26.72	133	0.63
249p	7.18	34.04	2.02	139	400	6.19	34.10	0.88	26.85	121	0.76
337p	6.48	34.05	1.22	129							
469p	5.86	34.16	0.56	114							

47.60

STRANGER; July 5, 1958; 1807 GCT; 39°52'N, 125°19.5'W; sounding, 1600 fm; wind, 360°, force 3; weather, fog; sea, very rough; wire angle, 03°.

0	15.62	32.74	380	0	15.62	32.74	24.10	380	0.00
9	15.55	32.81	374	10	15.54	32.80	24.18	374	0.04
29	15.47	32.75	377	20	15.50	32.78	24.17	375	0.08
38	15.46	32.76	376	30	15.47	32.75	24.16	376	0.11
49	15.22	32.72	373	50	15.19	32.72	24.20	373	0.19
58	14.51	32.70	360	75	10.11	33.10	25.45	254	0.27
67	11.29	32.98	280	100	9.08	33.37	25.85	216	0.33
82	9.67	33.16	240	150	8.25	33.81	26.32	171	0.42
131p	8.38	33.66	184	200	7.97	33.98	26.50	154	0.50
167p	8.20	33.89	164	250	7.38	34.03	26.63	142	0.58
231p	7.62	34.02	146	300	6.66	34.04	26.73	132	0.65
315p	6.48	34.05	130	400	6.12	34.16	26.90	116	0.78
433p	5.98	34.23	110						

47.90

STRANGER; July 8, 1958; 1145 GCT; 38°54'N, 127°30'W; sounding, 2450 fm; wind, 360°, force 6; weather, overcast; sea, high; wire angle, 13°.

0	17.00	33.01	391	0	17.00	33.01	24.01	391	0.00
10	17.00	33.04	388	10	17.00	33.04	24.04	388	0.04
29	17.00	32.98	393	20	17.00	33.01	24.01	391	0.08
43	13.16	32.97	314	30	17.00	32.98	23.99	393	0.12
52	12.16	32.95	298	50	12.22	32.95	24.98	299	0.19
61	11.91	32.97	290	75	11.68	33.03	25.14	284	0.26
71	11.76	33.02	285	100	10.46	33.11	25.42	257	0.33
89	11.51	33.06	278	150	8.35	33.47	26.04	198	0.44
102	10.24	33.12	253	200	7.95	33.92	26.46	158	0.53
117	9.14	33.30	222	250	7.22	33.98	26.60	144	0.61
140	8.45	33.42	203	300	6.54	33.97	26.69	136	0.68
168	8.18	33.62	184	400	5.58	33.99	26.84	122	0.81
205	7.92	33.93	157	500	4.97	34.07	26.97	110	0.94
256	7.15	33.98	143						
336	6.17	33.96	132						
434	5.27	34.02	117						
572	4.62	34.15	100						

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

50.60 STRANGER; July 9, 1958; 1455 GCT; 39°25'N, 124°50'W; sounding, 1220 fm; wind, 340°, force 7; weather, overcast; sea, very high; wire angle, 05°.

0	15.20	32.78	369	0	15.20	32.78	24.24	369	0.00
9	15.18	32.79	368	10	(15.18)	(32.79)	(24.26)	(367)	(0.04)
58	13.42	32.84	329	20	(15.18)	(32.79)	(24.26)	(367)	(0.07)
114	9.16	33.33	220	30	15.2	(32.79)	(24.26)	(367)	(0.11)
				50	15.2	(32.79)	(24.26)	(367)	(0.18)
				75	11.8	33.03	25.11	286	(0.26)
				100	10.38	33.20	25.51	248	(0.33)

50.70 STRANGER; July 9, 1958; 0654 GCT; 39°06'N, 125°38'W; sounding, 2000 fm; wind, 360°, force 7; weather, overcast; sea, high; wire angle, 05°.

0	14.38	32.85	346	0	14.38	32.85	24.48	346	0.00
11	14.36	32.90	343	10	14.36	32.90	24.52	343	0.03
30	13.74	32.84	335	20	14.35	32.90	24.52	343	0.07
44	12.68	32.92	310	30	13.74	32.84	24.60	335	0.10
54	11.98	32.95	294	50	12.27	32.94	24.96	301	0.17
63	11.17	32.98	278	75	10.21	33.14	25.46	253	0.24
73	10.52	33.12	253	100	9.38	33.42	25.86	215	0.30
92	9.31	33.35	220	150	8.52	33.79	26.27	176	0.39
105	9.40	33.47	213	200	8.06	33.98	26.48	156	0.48
120	8.97	33.58	198	250	7.48	34.03	26.61	144	0.56
143	8.58	33.77	178	300	6.95	34.09	26.74	132	0.63
171	8.34	33.88	166	400	6.12	34.14	26.88	118	0.76
207	7.98	33.99	154	500	5.57	34.19	27.00	107	0.87
257	7.40	34.04	142						
338	6.62	34.12	126						
437	5.88	34.15	115						
578	5.13	32.27	97						

50.80 STRANGER; July 9, 1958; 0013 GCT; 38°42.5'N, 126°23'W; sounding, 2320 fm; wind, 360°, force 6; weather, cloudy; sea, very high; wire angle, 20°.

0	16.52	32.87	390	0	16.52	32.87	24.02	390	0.00
9	16.50	32.86	391	10	16.50	32.86	24.01	391	0.04
28	16.52	32.92	386	20	16.51	32.89	24.03	389	0.08
55	14.15	33.02	330	30	16.52	32.92	24.06	386	0.12
63	13.40	33.04	314	50	16.48	32.92	24.06	386	0.19
71	12.87	33.03	305	75	12.62	33.02	24.96	301	0.28
84	12.25	33.01	295	100	10.80	33.09	25.35	264	0.35
95	11.84	33.04	285	150	8.20	33.53	26.11	191	0.46
106	10.18	33.13	250	200	7.94	33.92	26.46	158	0.56
120	9.22	33.22	229	250	7.30	33.98	26.59	145	0.63
136	8.42	33.37	206	300	6.73	34.02	26.71	134	0.70
159	8.16	33.65	181	400	6.18	34.12	26.86	120	0.84
177	8.12	33.80	177	500	5.35	34.16	26.99	108	0.96
218	7.76	33.95	153						
286	6.82	34.00	137						
379	6.30	34.11	122						
504	5.27	34.16	106						

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

STRANGER; July 8, 1958; 1649 GCT; 38°19'N, 127°08'W; sounding, 2520 fm; wind, 360°, force 6; weather, overcast; sea, high; wire angle, 15°. 50.90

0	17.00	32.99		390	0	17.00	32.99		24.00	390	0.00
9	16.99	32.97		394	10	16.99	32.97		23.98	394	0.04
28	16.99	32.97		394	20	16.99	32.97		23.98	394	0.08
55	13.08	32.99		312	30	16.99	32.97		23.98	394	0.12
66	12.64	33.00		302	50	15.46	32.98		24.33	360	0.19
74	12.44	33.04		296	75	12.43	33.04		25.00	296	0.28
89	12.14	33.10		286	100	11.55	33.21		25.31	268	0.35
101	11.54	33.21		267	150	9.28	33.58		25.98	203	0.46
115	10.10	33.34		234	200	8.66	33.86		26.30	173	0.56
132	9.65	33.46		218	250	8.10	34.02		26.52	153	0.64
151	9.26	33.58		203	300	7.60	34.09		26.64	141	0.72
177	8.96	33.75		185	400	6.83	34.15		26.79	126	0.86
198	8.66	33.86		173	500	6.38	34.20		26.93	114	0.98
248	8.08	34.02		153							
325	7.42	34.11		137							
427	6.63	34.16a)		123							
559	5.84	34.24		108							

PAOLINA-T; July 17, 1958; 2225 GCT; 39°02.5'N, 123°51'W; sounding, 52 fm; wind, 340°, force 3; weather, partly cloudy; sea, moderate; wire angle, 05°. 53.52

0	11.84	33.44	6.86	256	0	11.84	33.44	6.86	25.43	256	0.00
10	9.54	33.55	5.45	209	10	9.54	33.55	5.45	25.92	209	0.02
31	8.74	33.71	3.21	185	20	9.05	33.62	4.91	26.05	197	0.04
51	8.60	33.84	2.74	174	30	8.76	33.71	3.24	26.17	186	0.06
77	8.40	33.93	2.15	164	50	8.60	33.84	2.74	26.29	174	0.10
					75	8.40	33.93	2.18	26.39	164	0.14

PAOLINA-T; July 17, 1958; 2005 GCT; 38°56.5'N, 124°02.5'W; sounding, 380 fm; wind, variable, force 1; weather, partly cloudy; sea, moderate; wire angle, 00°. 53.55

0	13.31	33.19	6.41	301	0	13.31	33.19	6.41	24.96	301	0.00
10	11.32	33.21	6.09	263	10	11.32	33.21	6.09	25.36	263	0.03
31	10.78	33.38	6.53	242	20	11.05	33.34	6.29	25.49	250	0.05
42	10.20	33.39	5.79	232	30	10.79	33.38	6.51	25.58	242	0.08
52	9.30	33.47	4.15	212	50	9.43	33.45	4.37	25.86	215	0.12
61	9.18	33.59	4.25	201	75	9.07	33.65	3.39	26.08	194	0.18
72	9.08	33.66	3.41	194	100	8.92	33.72	3.15	26.16	187	0.22
87	9.02	33.65	3.36	194	150	8.30	33.92	2.37	26.40	164	0.31
103	8.86	33.73	3.02	186	200	7.98	33.99	2.08	26.50	154	0.39
118	8.55	33.80	2.86	176	250	7.41	34.04	1.78	26.62	143	0.47
143	8.36	33.88	2.41	167	300	7.02	34.08	1.40	26.72	134	0.54
174	8.19	33.96	2.24	159	400	6.44	34.14	0.88	26.84	122	0.67
208	7.89	34.00	2.02	152	500	5.95	34.19	0.56	26.94	112	0.79
258	7.35	34.04	1.75	141							
338	6.80	34.12	1.12	128							
438	6.22	34.15	0.73	119							
569	5.62	34.24	0.40	105							

a) Loose bottle cap; value falls on property curve.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
53.60	PAOLINA-T; July 17, 1958; 1639 GCT; 38°46.5'N, 124°26.5'W; sounding, 1960 fm; wind, calm; weather, fog; sea, moderate; wire angle, 16°.										
0	13.66	32.81	6.01	336	0	13.66	32.81	6.01	24.59	336	0.00
10	10.98	33.06	5.86	269	10	10.98	33.06	5.86	25.29	269	0.03
29	10.59	33.13	5.54	257	20	10.75	33.10	5.69	25.36	262	0.06
39	10.36	33.22	5.55	246	30	10.56	33.13	5.54	25.42	256	0.08
49	10.16	33.24	5.45	242	50	10.14	33.24	5.43	25.58	242	0.13
59	10.08	33.30	5.40	237	75	9.87	33.32	5.38	25.68	232	0.19
69	10.03	33.30	5.41	236	100	9.45	33.55	5.07	25.93	208	0.25
83	9.61	33.34	5.19	226	150	8.62	33.94	2.25	26.37	166	0.34
98	9.51	33.55	5.05	209	200	8.02	34.04	1.74	26.54	150	0.42
111	8.84	33.53	5.24	200	250	7.37	34.06	1.51	26.65	140	0.50
134	8.78	33.82	2.76	178	300	7.12	34.10	1.17	26.71	134	0.57
162	8.52	33.98	2.06	162	400	6.53	34.16	0.78	26.84	122	0.70
192	8.18	34.04	1.79	152	500	6.81	34.20	0.54	26.96	110	0.82
237	7.45	34.05	1.63	142							
314	7.05	34.11	1.21	132							
408	6.44	34.16	0.75	120							
535	5.58	34.21	0.47	106							
57.51	PAOLINA-T; July 17, 1958; 0325 GCT; 38°30'N, 123°22'W; sounding, 58 fm; wind, calm; weather, fog; sea, slight; wire angle, 07°.										
0	11.58	33.28	6.17	263	0	11.58	33.28	6.17	25.36	263	0.00
10	10.25	33.64	5.75	214	10	10.25	33.64	5.75	25.87	214	0.02
30	9.59	33.68	5.07	200	20	9.87	33.67	5.44	25.96	206	0.04
50	8.94	33.75	3.26	185	30	9.59	33.68	5.07	26.02	200	0.06
77	8.64	33.80	2.58	178	50	8.94	33.75	3.26	26.18	185	0.10
					75	8.65	33.80	2.60	26.24	178	0.15
57.55	PAOLINA-T; July 17, 1958; 0603, 0630 GCT; 38°22'N, 123°39.5'W; sounding, 400 fm; wind, 340°, force 3; weather, fog; sea, moderate; wire angle, 05°, 05°.										
0	13.08	33.33	6.32	287	0	13.08	33.33	6.32	25.10	287	0.00
10	12.92	33.30	6.17	286	10	12.92	33.30	6.17	25.12	286	0.03
31	11.00	33.42	5.00	243	20	12.02	33.36	5.60	25.34	265	0.06
47	10.59	33.53	5.15	228	30	11.02	33.42	5.00	25.56	243	0.08
57	10.24	33.52	4.73	223	50	10.47	33.53	5.03	25.74	226	0.13
67	9.86	33.47	4.37	220	75	8.81	33.42	4.37	25.92	209	0.18
77	8.76	33.41	4.37	208	100	8.60	33.78	3.20	26.25	178	0.23
97	8.60	33.75	3.27	180	150	8.55	33.93	2.01	26.38	166	0.32
111	8.66	33.86	2.46	173	200	8.35	34.01	1.65	26.48	156	0.40
127	8.72	33.89	2.10	172	250	7.89	34.04	1.42	26.56	149	0.48
152	8.55	33.93	2.01	166	300	7.65	34.07	1.31	26.62	143	0.55
181	8.42	34.00	1.74	160	400	6.85	34.11	0.96	26.76	130	0.70
222	8.12	34.01	1.59	154	500	6.11	34.14	0.63	26.88	118	0.82
276	7.77	34.06	1.35	145	600	5.73	34.17	0.49	26.95	111	0.94
362	7.34	34.09	1.14	137							
456	6.32	34.13	0.72	121							
604	5.72	34.17	0.49	111							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T} $^{-5}_{10}$ cm^3/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T} $^{-5}_{10}$ cm^3/g	ΔD dyn. m
PAOLINA-T; July 17, 1958; 1003 GCT; 38°12'N, 124°01.5'W; sounding, 1980 fm; wind, 320°, force 3; weather, fog; sea, moderate; wire angle, 08°.											57.60
0	12.36	33.21	6.67	282	0	12.36	33.21	6.67	25.16	282	0.00
10	11.67	33.24	6.35	268	10	11.67	33.24	6.35	25.30	268	0.03
30	10.92	33.31	5.95	250	20	11.30	33.28	6.15	25.40	258	0.05
40	9.94	33.39	5.13	227	30	10.92	33.31	5.95	25.50	250	0.08
50	9.32	33.40	4.60	217	50	9.32	33.40	4.60	25.84	217	0.12
60	9.00	33.42	4.25	211	75	8.95	33.56	3.77	26.02	200	0.18
69	9.02	33.50	4.03	205	100	8.72	33.67	3.01	26.14	188	0.23
84	8.78	33.62	3.45	192	150	8.10	33.89	2.17	26.41	163	0.32
99	8.74	33.84u	3.00		200	7.84	34.05	1.45	26.58	147	0.39
113	8.43	33.78	3.13	176	250	7.43	34.10	1.23	26.67	138	0.47
137	8.16	33.84	3.45	167	300	7.12	34.12	1.05	26.73	132	0.54
166	8.08	33.95	2.02	158	400	6.55	34.18	0.73	26.88	118	0.66
200	7.84	34.05	1.45	147	500	5.90	34.20	0.49	26.95	111	0.78
249	7.44	34.10	1.24	138							
327	6.95	34.13	0.98	130							
425	6.39	34.18	0.65	118							
554	5.56	34.20	0.43	106							
STRANGER; July 10, 1958; 0636 GCT; 37°47.5'N, 123°15'W; sounding, 55 fm; wind, 320°, force 4; weather, fog; sea, very rough; wire angle, 08°.											60.55
0	13.96	33.02		326	0	13.96	33.02		24.69	326	0.00
10	13.90	33.01		326	10	13.90	33.01		24.70	326	0.03
29	10.78	33.29		248	20	10.94	33.10		25.34	265	0.06
48	10.45	33.47		230	30	10.78	33.31		25.52	247	0.09
73	8.68	33.67		188	50	10.30	33.47		25.72	228	0.14
					75	(8.68)	(33.69)		(26.17)	(186)	(0.19)
STRANGER; July 10, 1958; 1003 GCT; 37°37'N, 123°37'W; sounding, 1540 fm; wind, 320°, force 4; weather, fog; sea, rough; wire angle, 20°.											60.60
0	15.98	33.01		368	0	15.98	33.01		24.25	368	0.00
9	15.98	32.97		371	10	15.98	32.97		24.22	371	0.04
28	12.70	33.04		301	20	15.98	32.97		24.22	371	0.07
42	11.39	33.15		270	30	12.47	33.05		25.00	296	0.11
51	10.74	33.27		249	50	11.10	33.26		25.42	257	0.16
60	9.72	33.32		229	75	9.10	33.42		25.88	212	0.22
69	9.25	33.35		220	100	8.71	33.60		26.10	192	0.27
85	8.70	33.52		199	150	8.22	33.90		26.40	164	0.36
98	8.70	33.60		193	200	7.30	33.97		26.59	146	0.44
109	8.68	33.68		186	250	6.85	34.02		26.69	136	0.51
130	8.37	33.82		172	300	6.80	34.10		26.76	129	0.58
154	8.20	33.92		162	400	6.25	34.24		26.94	113	0.71
188	7.46	33.96		149	500	5.72	34.28		27.04	103	0.82
238	6.92	34.00		138							
308	6.78	34.14		126							
392	6.29	34.23		113							
537	5.54	34.29		100							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

60.70 STRANGER; July 10, 1958; 1627, 1713 GCT; 37°17'N, 124°21'W; sounding, 2250 fm; wind, 330°, force 5; weather, overcast; sea, high; wire angle, 13°, 20°.

0	15.27	33.04	352	0	15.27	33.04	24.42	352	0.00
10	15.24	33.06	350	10	15.24	33.06	24.44	350	0.04
30	11.63a)	33.27	264	20	15.22	33.06	24.45	349	0.07
45	10.01	33.39	229	30	11.63	33.27	25.34	264	0.10
53	9.74	33.43	221	50	9.85	33.41	25.76	224	0.15
62	9.26	33.46	212	75	9.05	33.49	25.94	207	0.20
70	9.08	33.48	208	100	8.73	33.70	26.16	186	0.25
89	8.86	33.66	191	150	8.16	33.90	26.40	163	0.34
101b)	8.55	33.73		200	7.42	33.99	26.59	146	0.42
				250	6.92	34.00	26.67	138	0.49
111b)	8.72	33.68		300	6.72	34.10	26.78	128	0.56
133	8.32	33.82	171	400	5.68	34.13	26.93	114	0.69
159	8.05	33.93	159	500	5.06	34.19	27.05	102	0.80
195	7.50	33.99	147						
244	6.97	34.00	139						
319	6.62	34.13	125						
417	5.44	34.13	111						
553	4.96	34.22	98						

60.80 STRANGER; July 10, 1958; 2200, 2230 GCT; 36°57'N, 125°04'W; sounding, 2375 fm; wind, 350°, force 4; weather, overcast; sea, very rough; wire angle, 15°, 22°.

0	15.10	32.81	365	0	15.10	32.81	24.28	365	0.00
10	15.08	32.84	363	10	15.08	32.84	24.30	363	0.04
29	15.03	32.83	362	20	15.07	32.84	24.30	363	0.07
42	12.91	32.85	318	30	15.02	32.83	24.32	362	0.11
51	12.34	32.88	306	50	12.37	32.88	24.89	307	0.18
60	11.94	32.88	299	75	11.40	33.04	25.10	277	0.25
69	11.82	32.97	290	100	9.82	33.32	25.69	231	0.31
89	10.16	33.24	242	150	8.55	33.72	26.21	182	0.42
				200	8.02	33.95	26.47	157	0.50
98	9.86	33.30	233	250	7.20	34.03	26.65	140	0.58
109	9.44	33.46	214	300	6.65	34.06	26.75	130	0.65
133	8.94	33.59	197	400	6.08	34.12	26.87	119	0.78
158	8.38	33.78	175	500	5.37	34.17	27.00	106	0.90
191	8.14	33.93	160						
238	7.37	34.02	143						
311	6.58	34.07	128						
406	6.02	34.13	118						
540	5.00	34.19	102						

60.90 STRANGER; July 11, 1958; 0325 GCT; 36°37'N, 125°47'W; sounding, 2500 fm; wind, 360°, force 4; weather, overcast; sea, very rough; wire angle, 09°.

0	16.68	32.85	396	0	16.68	32.85	23.96	396	0.00
10	16.67	32.81	398	10	16.67	32.81	23.94	398	0.04
29	16.67	32.84	396	20	16.67	32.84	23.95	397	0.08
43	13.89	32.84	338	30	16.67	32.84	23.96	396	0.12
53	12.52	32.86	310	50	12.88	32.86	24.78	318	0.19
62	11.74	32.86	297	75	11.34	32.93	25.14	284	0.26
71	11.33	32.83	292	100	10.19	33.20	25.53	246	0.33
89	11.36	33.14	269	150	8.73	33.69	26.16	186	0.44
104	9.79	33.22	238	200	8.46	33.96	26.41	163	0.53
116	9.26	33.43	214	250	8.00	34.02	26.53	152	0.61
138	8.82	33.62	193	300	7.47	34.09	26.66	139	0.68
163	8.64	33.80	177	400	6.60	34.14	26.82	124	0.82
198	8.46	33.96	163	500	6.00	34.18	26.92	114	0.95
245	8.04	34.01	153						
318	7.28	34.11	136						
411	6.54	34.14	123						
543	5.74	34.21	108						

a) Mean value of 11.57 and 11.69°C.

b) Depth uncertain; not used in interpolation.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T_3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m
STRANGER; July 12, 1958; 0610 GCT; 37°19'N, 122°36'W; sounding, 46 fm; wind, 340°, force 3; weather, fog; sea, moderate; wire angle, 03°.											63.52
0	12.81	33.07		301	0	12.81	33.07		24.96	301	0.00
10	11.05	33.37		247	10	11.05	33.37		25.52	247	0.03
29	9.24	33.64		198	20	9.82	33.54		25.86	234	0.05
49	8.95	33.78		183	30	9.23	33.64		26.04	198	0.07
73	8.82	33.89		174	50	8.94	33.78		26.20	183	0.11
					75	(8.81)	(33.91)		(26.31)	(172)	(0.15)
STRANGER; July 12, 1958; 0137 GCT; 37°02.5'N, 123°12'W; sounding, 1125 fm; wind, 320°, force 5; weather, overcast; sea, very rough; wire angle, 02°.											63.60
0	13.30	33.17		302	0	13.30	33.17		24.94	302	0.00
10	13.28	33.21		300	10	13.28	33.21		24.97	300	0.03
29	10.39	33.40		234	20	13.26	33.22		24.99	298	0.06
44	9.72	33.49		216	30	10.37	33.40		25.67	333	0.09
63	9.45	33.71		196	50	9.61	33.57		25.92	209	0.13
72	9.38	33.78		190	75	9.37	33.80		26.14	188	0.18
91	9.26	33.83		185	100	9.06	33.84		26.22	181	0.23
105	8.98	33.84		179	150	8.57	33.99		26.44	160	0.31
118	8.87	33.91		173	200	7.82	34.05		26.58	147	0.39
140	8.71	33.99		164	250	7.40	34.15		26.71	134	0.46
167	8.03	34.00		154	300	6.81	34.14		26.79	127	0.53
204	7.80	34.07		145	400	6.06	34.19		26.92	114	0.65
254	7.38	34.15		133	500	5.65	34.27		27.04	103	0.77
332	6.48	34.14		123							
431	5.93	34.22		110							
571	5.40	34.31		96							
STRANGER; July 11, 1958; 1940 GCT; 36°42'N, 123°55'W; sounding, 2150 fm; wind, 350°, force 5; weather, overcast; sea, very rough; wire angle, 08°.											63.70
0	15.58	33.01		360	0	15.58	33.01		24.33	360	0.00
10	15.58	33.03		358	10	15.58	33.03		24.35	358	0.04
29	15.54	32.98		361	20	15.56	33.01		24.34	359	0.07
44	11.36	33.14		269	30	15.54	32.98		24.32	361	0.11
53	10.47	33.33		240	50	10.77	33.25		25.47	252	0.17
62	9.84	33.48		220	75	9.40	33.58		25.96	206	0.23
71	9.46	33.56		208	100	8.81	33.69		26.15	188	0.28
89	9.11	33.64		196	150	8.20	33.84		26.36	168	0.37
103	8.76	33.71		185	200	7.53	33.96		26.55	150	0.45
116	8.68	33.78		180	250	6.89	34.00		26.67	138	0.52
139	8.36	33.78		174	300	6.61	34.08		26.76	129	0.59
164	8.02	33.94		158	400	5.96	34.16		26.91	115	0.72
202	7.51	33.96		150	500	5.48	34.21		27.02	105	0.83
252	6.87	34.00		138							
330	6.43	34.12		123							
429	5.78	34.17		112							
568	5.20	34.27		98							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

63.80 STRANGER; July 11, 1958; 1425 GCT; 36°22.5'N, 124°38'W; sounding, 2300 fm; wind, 330°, force 5; weather, overcast; sea, very rough; wire angle, 05°.

0	16.05	32.88	379	0	16.05	32.88	24.13	379	0.00
10	16.04	32.89	378	10	16.04	32.89	24.14	378	0.04
29	16.04	32.89	378	20	16.04	32.89	24.14	378	0.08
44	16.06	32.93	376	30	16.04	32.89	24.14	378	0.11
53	16.06	32.94	376	50	16.06	32.94	24.16	376	0.19
63	14.57	33.15	329	75	13.00	33.20	25.03	294	0.27
73	13.88	33.20	312	100	10.75	33.38	25.58	242	0.34
91	11.94	33.27	270	150	8.61	33.68	26.18	184	0.45
105	10.15	33.43	228	200	8.05	33.93	26.45	159	0.54
117	9.12	33.36	217	250	7.54	33.99	26.57	147	0.62
140	8.78	33.57	196	300	6.86	33.99	26.67	138	0.69
166	8.56	33.78	177	400	6.04	34.09	26.85	122	0.82
203	8.02	33.93	159	500	5.68	34.16	26.96	111	0.94
253	7.52	33.99	147						
332	6.47	33.99	134						
430	5.88	34.13	116						
570	5.42	34.18	107						

63.90 STRANGER; July 11, 1958; 0815, 0857 GCT; 36°03'N, 125°21'W; sounding, 2550 fm; wind, 340°, force 5; weather, overcast; sea, very rough; wire angle, 06°, 06°.

0	17.18	32.99	396	0	17.18	32.99	23.96	396	0.00
10	17.18	33.01	395	10	17.18	33.01	23.97	395	0.04
30	17.16	33.01	395	20	17.17	33.01	23.97	395	0.08
44	15.64	32.94	366	30	17.16	33.01	23.97	395	0.12
54	13.15	32.92	318	50	13.62	32.94	24.70	326	0.19
63	12.49	32.88	309	75	11.62	32.92	25.06	291	0.27
				100	10.00	33.23	25.60	240	0.34
73	11.80	32.90	285	150	8.64	33.68	26.17	186	0.44
91	10.52	33.08	260	200	8.05	33.95	26.46	158	0.53
104	9.78	33.31	231	250	7.48	34.03	26.61	144	0.61
117	9.24	33.42	215	300	6.95	34.07	26.72	134	0.68
138	8.71	33.61	192	400	6.41	34.13	26.83	123	0.81
165	8.57	33.85	172	500	5.93	34.20	26.96	111	0.93
202	8.02	33.95	157						
252	7.47	34.03	144						
331	6.72	34.09	129						
430	6.30	34.15	120						
569	5.58	34.24	104						

67.55 STRANGER; July 12, 1958; 1346 GCT; 36°39'N, 122°26'W; sounding, 1325 fm; wind, 315°, force 4; weather, overcast; sea, rough; wire angle, 08°.

0	11.34	33.60	235	0	11.34	33.60	25.64	235	0.00
10	11.31	33.62	234	10	11.31	33.62	25.66	234	0.02
29	10.74	33.57	227	20	11.10	33.60	25.69	231	0.05
39	9.55	33.55	209	30	10.70	33.57	25.73	227	0.07
48	9.89	33.71	204	50	9.87	33.71	25.98	203	0.11
57	9.75	33.73	200	75	9.35	33.82	26.15	185	0.16
67	9.54	33.78	192	100	9.17	33.94	26.28	175	0.21
81	9.21	33.85	182	150	8.95	33.99	26.36	168	0.29
94	9.21	33.89	180	200	8.50	34.08	26.50	144	0.37
107	9.16	33.95	174	250	8.23	34.12	26.57	148	0.45
130	9.10	33.96	172	300	7.80	34.14	26.65	140	0.52
157	8.88	34.01	165	400	6.85	34.21	26.84	122	0.66
188	8.58	34.05	158	500	6.10	34.23	26.95	111	0.78
233	8.38	34.12	150						
307	7.76	34.14	139						
402	6.83	34.21	122						
527	5.86	34.23	108						

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m

67.60

STRANGER; July 12, 1958; 1653 GCT; 36°29'N, 122°47.5'W; sounding, 1700 fm; wind, 340°, force 5; weather, overcast; sea, very rough; wire angle, 21°.

0	12.48	33.44	268	0	12.48	33.44	25.30	268	0.00
9	12.43	33.41	269	10	12.43	33.41	25.29	269	0.03
28	12.32	33.46	263	20	12.37	33.44	25.33	266	0.05
37	11.95	33.47	256	30	12.26	33.46	25.36	262	0.08
46	11.21	33.53	238	50	11.00	33.53	25.66	234	0.13
54	10.76	33.53	231	75	9.82	33.73	25.93	208	0.18
63	10.24	33.58	218	100	8.84	33.69	26.14	188	0.24
76	9.80	33.63	208	150	8.20	33.91	26.41	163	0.32
87	9.32	33.67	197	200	7.98	34.10	26.59	146	0.40
99	8.84	33.69	188	250	7.41	34.10	26.68	137	0.47
118	8.83	33.77	182	300	7.00	34.12	26.74	131	0.54
141	8.26	33.88	166	400	6.34	34.16	26.86	120	0.67
169	8.14	33.98	156	500	(5.60)	(34.22)	(27.01)	(106)	(0.79)
210	7.92	34.10	145						
277	7.14	34.11	133						
366	6.58	34.14	124						
486	5.71	34.21	108						

67.70

STRANGER; July 12, 1958; 2215 GCT; 36°07.5'N, 123°29'W; sounding, 2000 fm; wind, 340°, force 5; weather, overcast; sea, high; wire angle, 07°.

0	16.76	33.01	386	0	16.76	33.01	24.06	386	0.00
10	16.73	33.01	385	10	16.73	33.01	24.07	385	0.04
29	16.71	32.97	387	20	16.72	32.99	24.06	386	0.08
44	16.65	33.00	384	30	16.71	32.97	24.05	387	0.12
54	14.68	33.04	339	50	16.57	33.00	24.10	382	0.19
63	13.84	33.08	320	75	13.10	33.14	24.96	301	0.28
72	13.26	33.12	306	100	10.52	33.40	25.62	237	0.35
91	11.50	33.33	258	150	8.95	33.69	26.12	190	0.46
105	10.21	33.42	230	200	8.26	33.96	26.44	160	0.54
118	9.85	33.49	218	250	7.63	34.04	26.60	145	0.62
140	9.10	33.65	195	300	7.30	34.10	26.69	136	0.70
167	8.68	33.81	177	400	6.41	34.16	26.86	120	0.83
203	8.22	33.96	159	500	5.80	34.14	26.92	114	0.95
252	7.62	34.04	145						
329	7.13	34.13	132						
420	6.25	34.16	118						
566	5.40	34.11a)	112						

67.80

STRANGER; July 13, 1958; 0303 GCT; 35°47'N, 124°12.5'W; sounding, 2200 fm; wind, 340°, force 6; weather, overcast; sea, high; wire angle, 12°.

0	17.40	33.15	390	0	17.40	33.15	24.02	390	0.00
10	17.40	33.15	390	10	17.40	33.15	24.02	390	0.04
30	17.42	33.19	387	20	17.41	33.17	24.04	388	0.08
39	17.42	33.19	387	30	17.42	33.19	24.05	387	0.12
48	17.26	33.15	386	50	16.80	33.16	24.17	376	0.19
57	14.90	33.18	334	75	13.63	33.12	24.84	312	0.28
66	13.90	33.06	322	100	11.90	33.18	25.20	277	0.36
80	13.56	33.13	310	150	9.07	33.61	26.04	198	0.47
85p	13.46	33.12	308	200	8.28	33.94	26.42	162	0.56
95p	12.66	33.12	295	250	7.54	34.01	26.59	146	0.64
108p	10.90	33.30	250	300	6.93	34.04	26.70	136	0.72
129p	9.63	33.48	216	400	6.34	34.16	26.87	119	0.85
149p	9.08	33.61	198						
182p	8.58	33.90	168						
239p	7.70	34.00	149						
321p	6.74	34.05	132						
438p	6.18	34.21	113						

a) Value seems unusually low; nevertheless it was accepted.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

67.90 STRANGER; July 13, 1958; 0805 GCT; 35°28.5'N, 124°52'W; sounding, 2450 fm; wind, 340°, force 4; weather, partly cloudy; sea, high; wire angle, 15°.

0	17.36	33.01		399	0	17.36	33.01		23.93	399	0.00
9	17.36	32.96		403	10	17.36	32.96		23.89	403	0.04
28	17.34	33.02		398	20	17.35	33.00		23.92	400	0.08
57	13 66a)	32.98		324	30	17.34	33.02		23.94	398	0.12
66	12.93	32.95		312	50	14.05	32.98		24.64	331	0.19
75	12.48	32.97		302	75	12.48	32.97		24.94	302	0.27
90	12.08	33.12		284	100	11.26	33.24		25.37	261	0.34
103	11.00	33.27		254	150	9.24	33.59		26.01	201	0.46
118	10.04	33.37		231	200	8.79	33.92		26.33	170	0.55
135	9.40	33.46		214	250	8.05	33.98		26.49	155	0.64
154	9.12	33.60		199	300	7.46	34.06		26.64	141	0.72
180	9.04	33.86		179	400	6.48	34.14		26.84	122	0.85
202	8.75	33.93		169	500	5.72	34.18		26.97	110	0.97
252	8.01	33.98		155							
327	7.20	34.11		134							
429	6.21	34.15		118							
560	5.30	34.22		102							

67.100 STRANGER; July 13, 1958; 1301 GCT; 35°09'N, 125°33'W; sounding, 2600 fm; wind, 340°, force 6; weather, cloudy; sea, high; wire angle, 20°.

0	17.38	33.02		399	0	17.38	33.02		23.92	399	0.00
9	17.39	32.99		401	10	17.39	32.99		23.90	401	0.04
28	17.40	33.03		398	20	17.40	33.02		23.92	399	0.08
41	16.12	33.12		364	30	17.40	33.04		23.95	397	0.12
50	14.54	33.13		330	50	14.54	33.13		24.65	330	0.19
60	13.94	33.08		322	75	12.79	32.98		24.88	308	0.27
68	13.23	32.96		317	100	11.62	33.21		25.29	269	0.35
84	12.28	33.01		295	150	8.86	33.65		26.10	192	0.46
97	11.80	33.19		274	200	8.17	33.86		26.38	165	0.55
110	10.90	33.31		249	250	7.65	33.98		26.55	150	0.63
130	9.34	33.48		231	300	7.40	34.10		26.68	137	0.71
155	8.78	33.68		188	400	6.52	34.16		26.85	121	0.84
188	8.28	33.84		169	500	5.87	34.21		26.96	110	0.96
236	7.77	33.96		152							
309	7.36	34.12		135							
402	6.50	34.16		121							
535	5.63	34.23		106							

70.52 PAOLINA-T; July 15, 1958; 0125 GCT; 36°09'N, 121°48'W; sounding, 350 fm; wind, 290°, force 6; weather, clear; sea, very rough; wire angle, 25°.

0	11.88	33.56	6.47	248	0	11.88	33.56	6.47	25.51	248	0.00
9	11.86	33.58	6.36	246	10	11.86	33.58	6.36	25.53	246	0.02
28	11.34	33.52	6.00	241	20	11.82	33.58	6.32	25.54	246	0.05
37	11.03	33.53	4.84	236	30	11.30	33.52	5.92	25.59	240	0.07
47	9.92	33.55	3.78	215	50	9.95	33.62	3.53	25.91	210	0.12
56	9.96	33.69	3.22	205	75	9.63	33.79	2.91	26.08	194	0.17
65	9.83	33.79	3.04	197	100	9.15	33.87	2.57	26.23	180	0.22
78	9.59	33.79	2.86	192	150	8.82	34.01	1.94	26.40	164	0.30
91	9.26	33.85	2.65	183	200	8.60	34.08	1.67	26.48	156	0.38
105	9.10	33.87	2.53	179	250	8.06	34.11	1.96	26.59	146	0.46
128	9.02	33.96	2.13	171	300	7.60	34.11	1.32	26.66	140	0.54
155	8.80	34.02	1.92	164	400	7.17	34.19	0.92	26.78	128	0.67
188	8.70	34.06	1.85	159	500	6.45	34.22	0.63	26.90	116	0.80
234	8.21	34.11	1.52	148							
309	7.56	34.11	1.29	138							
405	7.16	34.19	0.88	128							
532	6.20	34.22	0.57	113							

a) Mean value of 13.60 and 13.73°C.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m
PAOLINA-T; July 14, 1958; 1955 GCT; 35°49.5'N, 122°23'W; sounding, 2000 fm; wind, 320°, force 5; weather, cloudy; sea, high; wire angle, 22°.											70.60
0	15.69	32.99	5.90	364	0	15.69	32.99	5.90	24.30	364	0.00
10	14.82	33.03	5.93	343	10	14.82	33.03	5.93	24.51	343	0.04
32	13.12	33.17	6.21	299	20	14.14	33.09	6.04	24.70	325	0.07
43	11.39	33.00	5.65	280	30	13.30	33.16	6.18	24.93	303	0.10
57	10.31	33.13	5.21	252	50	10.75	33.07	5.38	25.34	264	0.16
66	10.14	33.16	5.12	248	75	9.50	33.22	5.01	25.67	233	0.22
75	9.50	33.22	5.01	233	100	9.13	33.49	4.13	25.94	208	0.28
92	9.01	33.35	4.61	216	150	8.73	33.75	3.32	26.21	182	0.37
110	9.26	33.63	3.70	200	200	8.02	33.98	2.40	26.49	155	0.46
122	9.16	33.67	3.59	194	250	7.38	34.02	1.79	26.62	143	0.54
143	8.84	33.73	3.39	186	300	7.03	34.10	1.40	26.72	133	0.61
177	8.14	33.89	3.02	163	400	6.39	34.16	0.88	26.86	120	0.74
211	7.97	34.01	1.97	152	500	5.76	34.20	0.67	26.98	109	0.86
262	7.24	34.03	1.73	141	600	(5.21)	(34.30)		(27.11)	(96)	(0.96)
340	6.86	34.14	1.05	128							
445	6.02	34.17	0.77	115							
589	5.28	34.29	0.40	97							
PAOLINA-T; July 14, 1958; 1138 GCT; 35°30'N, 123°12'W; sounding, 2350 fm; wind, 290°, force 7; weather, partly cloudy; sea, high; wire angle, 29°.											70.70
0	16.52	32.91	5.66	387	0	16.52	32.91	5.66	24.05	387	0.00
9	16.53	32.95	5.63	385	10	16.51	32.95	5.63	24.08	384	0.04
30	15.77	32.97	5.75	366	20	16.30	32.96	5.67	24.13	379	0.08
42	14.12	32.97	5.95	333	30	15.77	32.97	5.75	24.27	366	0.11
56	12.79	32.97	5.83	308	50	13.33	32.97	5.89	24.78	318	0.18
62	12.14	33.15	5.46	283	75	11.80	33.25	5.12	25.29	269	0.26
72	11.90	33.22	5.23	273	100	11.02	33.44	4.48	25.58	242	0.32
89	11.28	33.39	4.69	250	150	9.62	33.74	2.76	26.05	197	0.43
109	10.76	33.48	4.23	234	200	8.47	33.84	2.77	26.31	172	0.52
121	10.26	33.63	3.63	215	250	8.15	34.00	1.58	26.49	155	0.61
142	9.77	33.71	2.93	201	300	7.93	34.05	1.43	26.56	148	0.69
177	9.35	33.87	2.40	183	400	6.86	34.10	0.98	26.74	131	0.83
213	8.32	33.88	2.77	167	500	5.83	34.12	0.57	26.90	116	0.96
264	8.12	34.02	1.56	153	600	(5.30)	(34.19)	(0.36)	(27.02)	(105)	(1.08)
345	7.56	34.08	1.27	141							
450	6.20	34.10	0.70	122							
599	5.30	34.19	0.36	105							
STRANGER; July 14, 1958; 0752 GCT; 35°07.5'N, 123°50'W; sounding, 2300 fm; wind, 340°, force 6; weather, clear; sea, high; wire angle, 21°.											70.80
0	15.9	-		376	0	15.9	(32.89)		(24.17)	(376)	(0.00)
9	15.90	32.89		376	10	15.90	32.89		24.17	376	0.04
27	15.92	32.88		376	20	15.91	32.88		24.17	376	0.08
41	15.88	32.88		376	30	15.91	32.88		24.17	376	0.11
50	14.80	32.92		350	50	14.80	32.92		24.44	350	0.18
58	13.54	33.04		317	75	12.38	32.96		24.96	301	0.27
67	12.88	32.97		310	100	10.57	33.19		25.47	252	0.34
84	11.80	32.95		291	150	9.39	33.83		26.16	186	0.45
104	10.18	33.30		238	200	8.60	33.97		26.40	164	0.54
125	9.36	33.52		209	250	7.90	34.10		26.91	144	0.62
147	9.42	33.82		188	300	7.37	34.17		26.70	135	0.69
178	8.64	33.87		172	400	6.72	34.20		26.85	121	0.82
222	8.18	34.02		154	500	5.58	34.22		26.99	108	0.94
292	7.60	34.16		136							
385	6.84	34.20		123							
517	5.60	34.22		106							

S10

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

70.90 STRANGER; July 14, 1958; 0017 GCT; 34°51.5'N, 124°27'W; sounding, 2425 fm; wind, 340°, force 5; weather, partly cloudy; sea, high; wire angle, 12°.

0	17.14	33.08	389	0	17.14	33.08		24.03	389	0.00
10	17.10	33.04	391	10	17.10	33.04		24.01	391	0.04
29	17.01	33.08	386	20	17.05	33.06		24.04	388	0.08
43	16.68	33.06	380	30	17.01	33.08		24.06	386	0.12
52	14.23	33.07	328	50	14.75	33.07		24.55	339	0.19
61	13.46	33.04	316	75	12.73	33.04		24.95	302	0.27
70	12.95	33.02	307	100	11.25	33.25		25.39	260	0.34
88	12.16	33.12	285	150	9.68	33.76		26.06	196	0.45
102	11.12	33.29	254	200	8.80	33.96		26.35	168	0.55
114	10.50	33.46	232	250	7.98	34.01		26.52	152	0.63
136	9.87	33.67	206	300	7.32	34.04		26.65	140	0.70
161	9.53	33.84	188	400	6.61	34.14		26.80	124	0.84
195	8.86	33.95	170	500	6.00	34.21		26.95	112	0.96
244	8.04	34.01	153							
319	7.16	34.05	138							
414	6.54	34.15	122							
550	5.66	34.24	104							

70.100 STRANGER; July 13, 1958; 1752 GCT; 34°32.5'N, 125°09'W; sounding, 2550 fm; wind, 340°, force 5; weather, cloudy; sea, high; wire angle, 15°.

0	17.75	33.04	406	0	17.75	33.04		23.85	406	0.00
10	17.76	33.04	406	10	17.76	33.04		23.85	406	0.04
29	17.72	33.06	403	20	17.74	33.05		23.86	405	0.08
43	16.65	33.06	380	30	17.72	33.06		23.88	403	0.12
52	15.76	33.04	362	50	15.95	33.04		24.25	366	0.20
62	13.66	33.07	317	75	12.72	33.16		25.04	293	0.28
71	13.04	33.14	300	100	10.98	33.34		25.51	248	0.35
88	11.73	33.19	272	150	9.08	33.60		26.03	199	0.46
101	10.83	33.35	245	200	8.66	34.02		26.43	161	0.55
113	9.96	33.38	228	250	7.82	34.10		26.62	143	0.63
135	9.45	33.49	213	300	7.08	34.13		26.71	134	0.70
160	8.90	33.68	190	400	6.70	34.19		26.87	119	0.84
194	8.75	34.00	164	500	5.92	34.25		27.00	107	0.95
240	7.98	34.09	146							
315	7.17	34.14	131							
409	6.43	34.19	118							
546	5.66	34.29	102							

73.55 PAOLINA-T; July 13, 1958; 0447 GCT; 35°28.5'N, 121°36.5'W; sounding, 550 fm; wind, 320°, force 5; weather, overcast; sea, rough; wire angle, 17°.

0	12.34	33.59	5.93	254	0	12.34	33.59	5.93	25.45	254	0.00
10	12.33	33.62	5.96	251	10	12.33	33.62	5.96	25.48	251	0.02
29	11.99	33.58	5.32	248	20	12.30	33.62	5.93	25.48	251	0.05
44	11.04	33.57	4.61	233	30	11.97	33.58	5.30	25.51	248	0.08
53	10.84	33.69	3.72	220	50	10.94	33.65	4.24	25.76	224	0.12
64	10.32	33.73	3.28	208	75	10.06	33.76	3.18	25.98	203	0.18
73	10.12	33.75	3.22	204	100	9.17	33.84	2.72	26.20	182	0.22
91	9.68	33.80	2.69	193	150	8.75	34.06	1.97	26.44	160	0.31
105	8.89	33.87	2.76	176	200	7.87	34.04	1.94	26.56	148	0.39
120	9.19	34.00	2.01	170	250	7.34	34.13	1.52	26.72	134	0.46
142	8.94	34.07	1.87	162	300	6.93	34.20	1.05	26.82	124	0.53
170	8.21	34.01	2.29	156	400	6.43	34.22	0.69	26.90	116	0.65
209	7.80	34.05	1.84	147	500	6.00	34.25	0.47	26.98	108	0.77
259	7.24	34.31u	1.47		600	(5.60)	(34.34)		(27.10)	(97)	(0.87)
339	6.76	34.22	0.84	120							
440	6.22	34.22	0.59	113							
586	5.66	34.32	0.34	99							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{3}^{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{3}^{-5} 10^{-5} cm/g	ΔD dyn. m

PAOLINA-T; July 13, 1958; 0825 GCT; 35°19.5'N, 121°58.5'W; sounding, 1300 fm; wind, 320°, force 5; weather, drizzle; sea, rough; wire angle, 10°. 73.60

0	12.80	33.14	5.96	295	0	12.80	33.14	5.96	25.02	295	0.00
10	12.61	33.15	5.94	291	10	12.61	33.15	5.94	25.06	291	0.03
30	12.18	33.17	5.76	281	20	12.67	33.17	5.81	25.07	290	0.06
45	12.06	33.40	5.52	263	30	12.18	33.17	5.76	25.16	281	0.09
56	10.05	33.22	5.09	242	50	11.28	33.33	5.33	25.45	254	0.14
65	9.54	33.30	4.92	228	75	9.17	33.47	4.74	25.91	210	0.20
76	9.16	33.47	4.74	210	100	8.69	33.64	3.90	26.12	190	0.25
96	8.72	33.57	4.15	196	150	8.39	33.97	2.39	26.43	161	0.34
110	8.68	33.73	3.46	183	200	7.75	34.03	2.00	26.57	148	0.42
120	8.68	33.87	2.71	172	250	7.34	34.11	1.58	26.69	136	0.49
150	8.39	33.97	2.39	161	300	7.20	34.15	1.20	26.74	131	0.55
179	8.03	34.00	2.14	154	400	6.60	34.25	0.61	26.91	116	0.68
218	7.52	34.05	1.89	143	500	5.85	34.28	0.44	27.02	105	0.80
271	7.26	34.13	1.39	134	600	5.17	34.30	0.33	27.12	95	0.90
355	6.96	34.22	0.85	122							
459	6.15	34.27	0.50	108							
605	5.12	34.30	0.33	95							

PAOLINA-T; July 13, 1958; 1529 GCT; 35°00.5'N, 122°43.5'W; sounding, 2480 fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 10°. 73.70

0	15.61	32.97	5.81	364	0	15.61	32.97	5.81	24.29	364	0.00
10	15.53	32.98	5.78	361	10	15.53	32.98	5.78	24.32	361	0.04
30	14.66	32.99	5.93	343	20	15.16	32.98	5.84	24.40	354	0.07
45	14.46	33.03	5.97	336	30	14.66	32.99	5.93	24.52	343	0.11
56	13.85	33.13	5.89	316	50	14.22	33.08	5.93	24.68	327	0.17
65	13.24	33.16	5.75	302	75	11.41	33.04	5.50	25.20	278	0.25
74	11.44	33.04	5.52	279	100	10.58	33.46	4.10	25.68	232	0.31
94	10.56	33.40	4.34	236	150	9.00	33.79	2.99	26.19	184	0.42
111	10.01	33.58	3.57	215	200	8.24	34.01	2.31	26.48	156	0.50
126	9.58	33.69	3.20	200	250	7.63	34.09	1.90	26.64	142	0.58
150	9.00	33.79	2.99	184	300	7.15	34.12	1.47	26.73	132	0.65
179	8.51	33.95	2.48	164	400	6.36	34.19	0.78	26.89	117	0.78
215	8.03	34.04	2.17	151	500	5.81	34.26	0.47	27.02	106	0.90
267	7.46	34.11	1.74	138	600	(5.25)	(34.29)	(0.35)	(27.11)	(96)	(1.00)
348	6.68	34.14	1.07	125							
451	6.06	34.24	0.58	110							
595	5.32	34.29	0.36	98							

PAOLINA-T; July 13, 1958; 2150 GCT; 34°41'N, 123°24'W; sounding, 2500 fm; wind, 320°, force 6; weather, cloudy; sea, high; wire angle, 24°. 73.80

0	16.52	33.04	5.69	378	0	16.52	33.04	5.69	24.14	378	0.00
10	16.44	33.08	5.73	374	10	16.44	33.08	5.73	24.19	374	0.04
28	13.04	33.30	5.72	288	20	16.41	33.08	5.73	24.20	373	0.07
43	11.46	33.41	4.86	252	30	12.87	33.31	5.67	25.13	284	0.11
52	10.54	33.49	4.51	230	50	10.73	33.48	4.57	25.67	233	0.16
61	9.88	33.49	4.14	219	75	9.38	33.58	3.54	25.97	204	0.21
70	9.46	33.55	3.65	208	100	8.97	33.70	3.29	26.13	189	0.26
90	9.08	33.68	3.32	193	150	8.38	33.91	2.67	26.38	166	0.35
104	8.89	33.71	3.27	188	200	7.79	33.99	2.20	26.54	151	0.43
118	8.72	33.77	3.13	180	250	7.21	34.04	1.64	26.66	140	0.51
142	8.44	33.88	2.78	168	300	6.93	34.09	1.23	26.74	132	0.58
169	8.15	33.96	2.29	158	400	6.19	34.17	0.68	26.89	117	0.71
207	7.70	34.00	2.18	149	500	5.55	34.18	0.52	26.98	108	0.82
258	7.18	34.04	1.60	139							
338	6.68	34.14	0.89	125							
437	5.94	34.17	0.61	114							
575	5.02	34.18	0.43	103							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10^{-5} cm/g	ΔD dyn. m
77.55	PAOLINA-T; July 11, 1958; 1335 GCT; 34°54'N, 121°13.5'W; sounding, 312 fm; wind, 360°, force 5; weather, overcast; sea, very rough; wire angle, 08°.										
0	13.98	33.46	6.07	294	0	13.98	33.46	6.07	25.03	294	0.00
9	13.96	33.46	6.02	294	10	13.96	33.46	5.98	25.03	294	0.03
30	12.02	33.58	5.07	249	20	13.88	33.46	5.96	25.04	293	0.06
41	11.30	33.63	4.23	232	30	12.02	33.58	5.07	25.50	249	0.08
52	10.06	33.66	3.68	210	50	10.10	33.66	3.71	25.90	211	0.13
62	10.05	33.67	3.46	209	75	9.22	33.68	3.50	26.07	195	0.18
72	9.28	33.64	3.63	199	100	9.25	33.93	2.70	26.26	177	0.23
85	9.23	33.81	2.93	186	150	8.95	34.04	1.79	26.40	164	0.32
101	9.26	33.93	2.62	177	200	8.57	34.12	1.52	26.52	152	0.40
114	9.12	33.98	2.41	171	250	8.37	34.16	1.47	26.58	146	0.47
141	9.01	34.01	1.93	168	300	8.00	34.23	1.26	26.69	136	0.54
170	9.76	34.10	1.61	156	400	7.30	34.22	1.01	26.79	127	0.68
204	8.52	34.13	1.52	151	500	6.42	34.26	0.63	26.94	112	0.80
254	8.32	34.17	1.45	145							
304	7.98	34.23	1.25	136							
409	7.24	34.22	0.99	127							
510	6.36	34.27	0.61	111							
77.60	PAOLINA-T; July 11, 1958; 0952 GCT; 34°44.5'N, 121°34'W; sounding, 550 fm; wind, 320°, force 6; weather, overcast; sea, very rough; wire angle, 06°.										
0	13.98	33.43	5.95	296	0	13.98	33.43	5.95	25.00	296	0.00
10	13.95	33.34	5.94	302	10	13.95	33.34	5.94	24.94	302	0.03
31	12.94	33.51	5.71	270	20	13.81	33.36	5.92	24.98	299	0.06
46	11.87	33.57	4.95	247	30	13.00	33.50	5.73	25.25	273	0.09
57	10.82	33.49	4.15	235	50	11.45	33.54	4.67	25.57	242	0.14
67	10.34	33.55	3.79	222	75	9.95	33.59	3.55	25.89	212	0.20
77	9.84	33.60	3.51	210	100	9.27	33.70	3.01	26.08	194	0.25
97	9.36	33.69	3.13	196	150	8.62	33.87	2.74	26.32	172	0.34
113	9.17	33.79	2.89	186	200	8.35	34.05	2.05	26.50	154	0.42
128	9.02	33.82	2.92	182	250	7.93	34.14	1.50	26.63	142	0.50
152	8.61	33.87	2.73	172	300	7.57	34.18	1.24	26.72	134	0.57
182	8.46	34.02	2.20	158	400	6.85	34.26	0.58	26.87	119	0.70
220	8.34	34.11	1.77	150	500	6.08	(34.29)	0.53	(27.01)	(106)	(0.82)
277	7.69	34.16	1.37	137	600	5.39		0.38			
359	7.20	34.24	0.63	124							
468	6.32	34.27	0.56	110							
613	5.24	34.41u	0.35								
77.70	PAOLINA-T; July 11, 1958; 0100 GCT; 34°25'N, 122°16.5'W; sounding, 2200 fm; wind, 320°, force 6; weather, overcast; sea, very rough; wire angle, 25°.										
0	16.50	33.26	5.50	362	0	16.50	33.26	5.50	24.32	362	0.00
8	16.54	33.22	5.53	365	10	16.54	33.22	5.54	24.28	365	0.04
33	11.82	33.48	4.67	253	20	16.45	33.22	5.53	24.30	363	0.07
41	10.72	33.42	4.32	238	30	13.20	33.41	4.91	25.15	283	0.10
55	10.02	33.48	4.02	222	50	10.20	33.46	4.09	25.73	227	0.16
65	9.68	33.57	3.78	210	75	9.30	33.61	3.53	26.00	202	0.21
74	9.33	33.61	3.57	202	100	8.90	33.74	3.24	26.17	186	0.26
92	9.06	33.70	3.36	191	150	8.62	34.00	2.12	26.42	162	0.35
108	8.76	33.78	3.12	180	200	7.89	34.06	1.99	26.57	147	0.42
123	8.90	33.93	2.34	172	250	7.39	34.09	1.64	26.67	138	0.50
143	8.76	33.99	2.17	165	300	6.89	34.10	1.50	26.75	131	0.57
180	8.05	34.04	2.07	151	400	6.35	34.17	1.12	26.88	118	0.70
215	7.74	34.07	1.88	144	500	5.82	34.28	0.46	27.03	104	0.81
267	7.21	34.09	1.54	136	600	5.27	34.33	0.37	27.14	94	0.92
349	6.58	34.11	1.47	126							
455	6.05	34.25	0.53	109							
602	5.26	34.33	0.36	94							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T_3}^{-5}$ 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T_3}^{-5}$ 10 cm/g	ΔD dyn. m
PAOLINA-T; July 10, 1958; 1755 GCT; 34°02.5'N, 122°56'W; sounding, 2500 fm; wind, 320°, force 6; weather, overcast; sea, very rough; wire angle, 18°.											77.80
0	16.89	33.01	5.43	389	0	16.89	33.01	5.43	24.03	389	0.00
10	16.89	32.99	5.57	390	10	16.89	32.99	5.57	24.02	390	0.04
35	15.58	33.07	5.92	355	20	16.83	32.99	5.59	24.03	389	0.08
45	14.00	33.01	6.15	328	30	16.80	32.99	5.60	24.04	388	0.12
59	12.54	32.90	6.22	308	50	13.70	33.00	6.18	24.73	323	0.19
68	12.32	32.92	6.00	303	75	12.21	32.94	5.58	24.97	300	0.26
78	12.13	32.95	5.43	297	100	11.30	33.13	5.30	25.29	269	0.34
97	11.40	33.08	5.38	275	150	9.30	33.74	3.59	26.10	192	0.45
117	10.45	33.35	4.71	239	200	8.45	33.97	2.48	26.42	162	0.54
132	9.53	33.49	4.13	214	250	8.00	34.05	2.00	26.55	150	0.62
156	9.15	33.77	3.15	187	300	7.27	34.06	1.73	26.66	138	0.70
195	8.54	33.94	2.58	166	400	6.19	34.12	0.95	26.86	120	0.83
233	8.20	34.04	2.10	153	500	5.60	34.20	0.51	27.00	107	0.95
292	7.39	34.06	1.79	140	600	5.15	34.28	0.32	27.11	96	1.06
378	6.34	34.11	1.08	123							
491	5.65	34.19	0.56	109							
641	4.98	34.31	0.26	92							
PAOLINA-T; July 10, 1958; 1055 GCT; 33°46'N, 123°39.5'W; sounding, 2500 fm; wind, 330°, force 5; weather, overcast; sea, very rough; wire angle, 06°.											77.90
0	18.00	33.19	5.28	401	0	18.00	33.19	5.28	23.91	401	0.00
11	18.01	33.21	5.30	400	10	18.01	33.21	5.30	23.92	400	0.04
36	18.00	33.18	5.31	402	20	18.00	33.18	5.31	23.90	402	0.08
66	14.66	33.26	5.49	323	30	18.00	33.18	5.31	23.90	402	0.12
76	14.37	33.30	5.41	314	50	18.00	33.18	5.31	23.90	402	0.20
92	14.20	33.28	5.51	312	75	14.39	33.30	5.41	24.82	314	0.29
100	13.62	33.22	5.42	305	100	13.62	33.22	5.42	24.91	305	0.37
121	12.40	33.41	5.15	268	150	9.89	33.45	4.68	25.78	223	0.50
134	11.06	33.38	4.95	247	200	8.72	33.77	3.46	26.22	180	0.60
153	9.70	33.46	4.60	218	250	8.22	34.00	2.16	26.48	156	0.69
177	9.04	33.58	4.02	200	300	7.42	34.04	1.67	26.63	142	0.77
207	8.67	33.78	3.39	180	400	6.20	34.08	1.15	26.83	123	0.91
236	8.41	33.98	2.33	161	500	5.78	(34.18)	0.47	(26.96)	(110)	(1.03)
293	7.54	34.04	1.68	144	600	5.30		0.32			
382	6.38	34.06	1.34	127							
497	5.79	34.18	0.48	111							
644	5.06	34.49r	0.25								
PAOLINA-T; July 8, 1958; 2140 GCT; 34°26.5'N, 120°32.5'W; sounding, 50 fm; wind, 320°, force 6; weather, partly cloudy; sea, rough; wire angle, 13°.											80.51
0	13.05	33.64	3.28u	264	0	13.05	33.64		25.35	264	0.00
26	10.94	33.63	3.56u	226	10	12.90	33.64		25.38	260	0.03
46	10.48	33.67	3.91u	216	20	12.20	33.64		25.51	248	0.05
65	10.31	33.71	5.59u	210	30	10.79	33.63		25.77	224	0.08
74	10.21	33.75	3.32u	206	50	10.42	33.68		25.87	214	0.12
					75	(10.20)	(33.75)		(25.97)	(205)	(0.17)

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
80.55	PAOLINA-T; July 9, 1958; 0035 GCT; 34°18.5'N, 120°48.5'W; sounding, 414 fm; wind, 320°, force 7; weather, overcast; sea, very rough; wire angle, 30°.										
0	13.11	33.46	5.96	278	0	13.11	33.46	5.96	25.20	278	0.00
8	13.10	33.48	5.90	276	10	13.07	33.48	5.87	25.22	276	0.03
26	12.88	33.50	5.83	270	20	12.99	33.49	5.86	25.25	273	0.06
39	11.25	33.40	4.57	248	30	12.60	33.49	5.62	25.31	267	0.08
48	10.22	33.37	4.40	234	50	10.23	33.42	4.35	25.70	230	0.13
57	10.43	33.53	3.99	225	75	10.12	33.74	3.16	25.97	204	0.19
65	10.70	33.67	3.58	219	100	9.41	33.94	2.30	26.24	179	0.24
81	9.80	33.77	2.97	197	150	9.10	34.01	1.72	26.35	168	0.32
93	9.46	33.89	2.50	183	200	8.75	34.12	1.48	26.49	155	0.40
103	9.40	33.95	2.27	178	250	8.55	34.16	1.28	26.55	149	0.48
119	9.36	33.95	2.13	176	300	8.20	34.20	1.11	26.64	141	0.56
142	9.18	33.98	1.72	172	400	7.40	34.23	0.68	26.78	128	0.70
170	8.96	34.07	1.71	162	500	(6.60)	(34.27)	(0.37)	(26.92)	(114)	(0.82)
213	8.66	34.13	1.36	153							
281	8.36	34.19	1.21	144							
368	7.63	34.22	0.78	132							
498	6.60	34.27	0.37	114							
80.60	PAOLINA-T; July 9, 1958; 0420 GCT; 34°08.5'N, 121°09'W; sounding, 1250 fm; wind, 340°, force 6; weather, overcast; sea, very rough; wire angle, 15°.										
0	14.72	33.31	6.02	320	0	14.72	33.31	6.02	24.76	320	0.00
10	14.70	33.34	6.06	318	10	14.70	33.34	6.06	24.78	318	0.03
34	13.16	33.46	5.52	278	20	14.66	33.34	6.05	24.78	317	0.06
44	11.45	33.23	5.11	265	30	13.80	33.41	5.74	25.03	294	0.09
59	10.48	33.36	4.64	238	50	11.00	33.28	4.93	25.46	253	0.15
68	10.10	33.47	4.29	224	75	10.00	33.47	4.02	25.78	223	0.21
78	9.97	33.48	3.94	221	100	9.29	33.67	3.22	26.04	198	0.26
99	9.32	33.66	3.24	198	150	8.76	33.90	2.27	26.36	168	0.35
119	9.07	33.76	2.76	187	200	8.07	34.01	1.82	26.50	154	0.44
133	8.96	33.86	2.32	177	250	7.60	34.06	1.39	26.62	143	0.51
157	8.68	33.88	2.25	172	300	7.05	34.10	1.17	26.72	133	0.58
196	8.11	34.00	1.85	155	400	6.55	34.18	0.53	26.86	120	0.71
235	7.80	34.05	1.48	146	500	5.85	34.27	0.36	27.02	105	0.83
293	7.14	34.09	1.22	135	600	5.27	34.32	0.27	27.12	95	0.94
382	6.64	34.16	0.61	123							
494	5.88	34.27	0.38	106							
646	5.01	34.33	0.24	92							
80.70	PAOLINA-T; July 9, 1958; 1130 GCT; 33°46'N, 121°49'W; sounding, 2200 fm; wind, 320°, force 5; weather, overcast; sea, very rough; wire angle, 18°.										
0	16.58	33.27	5.61	362	0	16.58	33.27	5.61	24.31	362	0.00
9	16.56	33.34	5.65	355	10	16.56	33.34	5.66	24.37	355	0.04
34	15.24	33.28	5.99	333	20	16.52	33.34	5.67	24.38	356	0.07
44	13.80	33.28	6.22	304	30	15.78	33.31	5.83	24.51	343	0.11
59	11.88	33.21	5.34	274	50	13.02	33.25	5.90	25.06	291	0.17
68	11.22	33.20	5.04	263	75	10.93	33.29	4.67	25.48	251	0.24
78	10.76	33.32	4.55	246	100	10.08	33.44	4.27	25.73	227	0.30
98	10.10	33.43	4.31	227	150	8.85	33.82	2.90	26.25	178	0.40
117	9.26	33.60	3.54	202	200	7.89	34.00	3.07	26.52	152	0.48
132	9.09	33.71	3.28	191	250	7.39	34.10	2.10	26.68	137	0.56
155	8.74	33.85	2.84	175	300	7.00	34.13	1.22	26.76	130	0.63
191	8.02	33.97a)	3.10	156	400	6.32	34.18	0.62	26.88	118	0.75
229	7.54	34.07a)	2.55	142	500	5.81	34.26	0.33	27.02	105	0.87
285	7.14	34.12	1.40	133	600	5.36	34.32	0.21	27.12	96	0.98
369	6.46	34.15	0.73	122							
479	5.90	34.25	0.36	107							
627	5.20	34.33	0.19	93							

a) Salinity samples at 191 and 229 meters appear to have been reversed; they are assumed to be listed in correct order.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

80.80

PAOLINA-T; July 9, 1958; 1816, 1855 GCT; 33°25'N, 122°30.5'W; sounding, 2400 fm; wind, 330°, force 6; weather, overcast; sea, very rough; wire angle, 26°, 23°.

0	17.58	33.06	5.56	400	0	17.58	33.06	5.56	23.92	400	0.00
9	17.60	33.03	5.48	403	10	17.60	33.03	5.48	23.89	403	0.04
32	16.54	33.08	5.65	376	20	17.60	33.03	5.48	23.89	403	0.08
41	16.18	33.15	5.66	362	30	16.65	33.08	5.64	24.13	379	0.12
55	15.19	33.06	5.86	348	50	15.61	33.10	5.75	24.40	354	0.19
64	14.00	33.01	5.97	328	75	13.35	33.03	5.95	24.83	313	0.28
72	13.54	33.04	5.96	317	100	12.27	33.02	5.67	25.03	294	0.35
90	12.59	33.00	5.87	302	150	10.02	33.43	4.37	25.74	226	0.48
107	12.02	33.06	5.50	287	200	8.80	33.80	3.17	26.23	180	0.59
120	11.26	33.22	5.09	262	250	8.10	33.96	2.82	26.46	158	0.68
					300	7.43	34.00	2.42	26.59	146	0.75
148	10.08	33.42	4.39	228	400	6.37	34.08	1.36	26.80	126	0.90
186	9.02	33.69	3.36	191	500	5.61	34.16	0.72	26.96	110	1.02
223	8.53	33.91	2.98	168	600	5.17	34.25	0.34	27.08	99	1.13
277	7.77	33.98	2.65	151							
362	6.78	34.04	1.75	134							
468	5.76	34.14	0.85	114							
613	5.06	34.27	0.29	96							

80.90

PAOLINA-T; July 10, 1958; 0130 GCT; 33°10'N, 123°14'W; sounding, 2400+ fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 11°.

0	17.96	33.15	5.48	402	0	17.96	33.15	5.48	23.89	402	0.00
11	17.96	33.15	5.44	402	10	17.96	33.15	5.45	23.89	402	0.04
36	18.01	33.34	5.46	390	20	17.98	33.21	5.45	23.93	399	0.08
46	17.41	33.40	5.79	372	30	18.00	33.25	5.45	23.96	396	0.12
61	14.76	33.33	6.04	320	50	16.06	33.37	5.92	24.50	344	0.19
71	14.71	33.31	5.93	320	75	14.62	33.31	5.87	24.77	318	0.28
80	14.50	33.31	5.82	316	100	14.30	33.42	5.75	24.93	304	0.36
100	14.30	33.42	5.75	304	150	10.28	33.56	3.90	25.80	221	0.48
121	11.56	33.51	4.32	246	200	9.27	33.78	2.94	26.14	188	0.59
136	10.52	33.48	4.17	230	250	8.22	34.00	2.14	26.48	156	0.68
161	10.16	33.61	3.69	215	300	7.62	34.06	1.81	26.61	144	0.75
199	9.28	33.78	2.95	189	400	6.80	34.17	0.82	26.82	124	0.89
237	8.42	33.98	2.26	161	500	6.05	34.20	0.37	26.94	113	1.02
296	7.70	34.05	1.88	145	600	5.45	34.25	0.25	27.05	102	1.13
383	6.92	34.16	0.92	127							
496	6.08	34.20	0.38	113							
648	5.16	34.29	0.22	96							

82.47

PAOLINA-T; July 8, 1958; 0431 GCT; 34°14.5'N, 119°58'W; sounding, 325 fm; wind, 300°, force 2; weather, fog; sea, moderate; wire angle, 12°.

0	14.32	33.78	7.16	278	0	14.32	33.78	7.16	25.20	278	0.00
10	13.26	33.82	6.72	254	10	13.26	33.82	6.72	25.45	254	0.03
30	10.42	33.68	3.43	214	20	11.80	33.74	4.92	25.67	233	0.05
41	9.56	33.86	2.45	186	30	10.42	33.68	3.43	25.87	214	0.07
51	9.45	33.89	2.34	183	50	9.45	33.89	2.35	26.20	183	0.11
60	9.42	33.92	2.20	180	75	9.40	33.94	2.20	26.25	178	0.16
71	9.41	33.89u	2.20		100	9.30	33.96	1.91	26.28	175	0.20
86	9.36	33.96	2.00	176	150	9.09	34.06	1.63	26.39	165	0.29
100	9.30	33.96	1.91	175	200	8.81	34.11	1.26	26.47	157	0.37
114	9.25	33.96	1.82	174	250	8.40	34.18	1.02	26.58	146	0.45
138	9.14	34.05	1.67	166	300	7.82	34.20	0.72	26.69	136	0.52
166	9.02	34.06	1.60	164	400	7.07	34.25	0.33	26.84	122	0.65
200	8.81	34.11	1.26	157	500	6.54	34.27	0.16	26.93	114	0.78
248	8.42	34.18	1.04	146							
297	7.87	34.20	0.74	136							
399	7.08	34.25	0.35	122							
500	6.54	34.27	0.16	114							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

83.43 PAOLINA-T; July 8, 1958; 0805 GCT; 34°07'N, 119°34.5'W; sounding, 150 fm; wind, 300°, force 3; weather, fog; sea, rough; wire angle, 20°.

0	16.14	33.66	6.33	324	0	16.14	33.66	6.33	24.71	324	0.00
10	16.07	33.80	6.31	312	10	16.07	33.80	6.31	24.84	312	0.03
29	11.68	33.54	4.60	246	20	15.73	33.78	6.17	24.89	307	0.06
48	10.60	33.60	3.69	223	30	11.60	33.54	4.54	25.55	244	0.09
71	9.94	33.74	3.17	202	50	10.58	33.60	3.67	25.78	222	0.14
96	9.58	33.84	2.91	188	75	9.82	33.76	3.09	26.04	198	0.19
120	9.47	33.94	2.47	180	100	9.57	33.85	2.88	26.15	188	0.24
157	9.26	34.09	1.84	165	150	9.27	34.08	1.85	26.37	167	0.33
195	9.06	34.15	1.57	158	200	9.00	34.16	1.52	26.48	156	0.41
244	8.53	34.17	1.16	148	250	(8.42)	(34.17)	(1.11)	(26.58)	(146)	(0.49)

83.51 PAOLINA-T; July 8, 1958; 0015 GCT; 33°51.5'N, 120°07.5'W; sounding, missing; wind, 320°, force 2; weather, overcast; sea, moderate; wire angle, 00°.

0	16.24	33.56	6.21	334	0	16.24	33.56	6.21	24.61	334	0.00
10	14.28	33.58	5.95	292	10	14.28	33.58	5.95	25.05	292	0.03
32	11.51	33.60	4.57	238	20	13.90	33.58	5.73	25.13	284	0.06
52	10.90	33.60	4.11	228	30	11.60	33.60	4.60	25.60	240	0.09
77	10.19	33.66	3.57	212	50	10.97	33.60	4.15	25.71	229	0.13
103	9.47	33.87	2.74	185	75	10.25	33.65	3.62	25.88	213	0.19
130	9.30	33.91	2.64	179	100	9.55	33.86	2.82	26.16	186	0.24

83.55 PAOLINA-T; July 7, 1958; 2135 GCT; 33°43.5'N, 120°24'W; sounding, 595 fm; wind, 320°, force 2; weather, overcast; sea, moderate; wire angle, 08°.

0	15.06	33.58	6.20	308	0	15.06	33.58	6.20	24.88	308	0.00
10	14.58	33.62	6.04	294	10	14.58	33.62	6.04	25.02	294	0.03
30	10.47	33.64	3.64	218	20	14.00	33.62	5.68	25.14	283	0.06
41	10.32	33.64	3.54	215	30	10.47	33.64	3.64	25.83	218	0.08
51	10.07	33.70	3.39	207	50	10.08	33.70	3.40	25.94	207	0.13
61	9.84	33.73	3.11	201	75	9.42	33.88	2.66	26.19	184	0.18
71	9.54	33.84	2.79	188	100	9.15	34.02	2.26	26.34	169	0.22
85	9.27	33.96	2.49	175	150	8.97	34.10	1.81	26.44	160	0.30
101	9.15	34.02	2.26	169	200	8.62	34.14	1.59	26.52	152	0.38
115	9.13	34.05	2.04	166	250	8.29	34.20	1.28	26.62	143	0.46
140	9.00	34.07	1.92	163	300	7.95	34.23	1.07	26.70	135	0.53
170	8.92	34.14	1.72	156	400	7.23	34.27	0.70	26.84	122	0.66
204	8.58	34.14	1.57	151	500	6.47	34.30	0.42	26.96	110	0.78
253	8.27	34.20	1.27	142							
333	7.64	34.25	0.92	130							
433	7.01	34.28	0.61	119							
564	5.84	34.33	0.31	101							

83.60 PAOLINA-T; July 7, 1958; 1819 GCT; 33°33.5'N, 120°44'W; sounding, 800 fm; wind, 320°, force 2; weather, overcast; sea, moderate; wire angle, 10°.

0	13.44	33.46	7.06a)	284	0	13.44	33.46	7.06	25.13	284	0.00
10	12.71	33.58	6.03	261	10	12.71	33.58	6.03	25.38	261	0.03
30	12.23	33.58	5.42	253	20	12.42	33.58	5.69	25.42	257	0.05
40	11.86	33.59	5.09	245	30	12.23	33.58	5.42	25.46	253	0.08
50	11.06	33.50	4.74	238	50	11.06	33.50	4.74	25.62	238	0.13
60	10.66	33.51	4.33	230	75	10.35	33.55	4.03	25.79	221	0.18
69	10.74	33.60	4.10	225	100	9.32	33.58	3.71	25.98	204	0.24
83	9.62	33.49	3.95	216	150	8.67	33.96	2.10	26.38	166	0.33
99	9.34	33.58	3.72	204	200	8.17	34.02	1.73	26.50	154	0.41
112	9.10	33.73	3.18	190	250	7.85	34.14	1.26	26.64	141	0.49
135	8.84	33.89	2.35	174	300	7.35	34.15	1.13	26.73	133	0.56
164	8.50	33.99	1.95	161	400	6.39	34.20	0.61	26.89	117	0.69
197	8.18	34.02	1.75	154	500	5.95	34.26	0.37	27.00	107	0.80
241	7.94	34.13	1.30	142							
320	7.14	34.16	1.05	130							
416	6.29	34.21	0.56	115							
546	5.65	34.31	0.25	100							

a) Mean value of 6.99 and 7.14 ml/L.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

83.70

PAOLINA-T; July 7, 1958; 1120 GCT; 33°14'N, 121°25.5'W; sounding, 2000 fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 15°.

0	17.26	33.07	5.60	392	0	17.26	33.07	5.60	24.00	392	0.00
10	17.24	33.12	5.61	388	10	17.24	33.12	5.61	24.04	388	0.04
30	16.80	33.08	5.80	381	20	17.04	33.10	5.72	24.07	385	0.08
44	14.35	33.09	6.18	329	30	16.80	33.08	5.80	24.11	381	0.12
55	14.21	33.21	5.89	317	50	14.25	33.18	6.00	24.75	321	0.19
65	13.84	33.21	5.83	310	75	13.13	33.03	5.65	24.87	309	0.26
74	13.13	33.03	5.65	310	100	11.60	33.26	5.07	25.34	264	0.34
93	12.25	33.11	5.38	288	150	9.05	33.68	3.55	26.10	192	0.45
108	10.89	33.43	4.77	240	200	8.25	33.95	2.27	26.43	161	0.54
123	9.98	33.44	4.11	224	250	7.62	34.01	1.62	26.57	147	0.62
147	9.12	33.64	3.68	196	300	7.21	34.06	1.23	26.67	138	0.70
176	8.76	33.86	2.48	174	400	6.39	34.16	0.67	26.86	120	0.83
212	8.10	33.98	2.19	156	500	5.80	34.23	0.39	27.00	107	0.95
267	7.46	34.03	1.49	144	600	(5.32)	(34.33)	(0.28)	(27.13)	(94)	(1.06)
350	6.81	34.12	0.95	128							
454	6.00	34.20	0.48	112							
595	5.36	34.32	0.29	96							

83.80

PAOLINA-T; July 7, 1958; 0443, 0502 GCT; 32°54'N, 122°08'W; sounding, 2400 fm; wind, 310°, force 2; weather, overcast; sea, moderate; wire angle, 17°, 17°.

0	17.62	33.13	5.51	396	0	17.62	33.13	5.51	23.96	396	0.00
10	17.41	33.15	5.54	390	10	17.41	33.15	5.54	24.02	390	0.04
29	16.88	33.24	5.54	372	20	17.10	33.20	5.54	24.13	379	0.08
44	15.86	33.36	5.73	340	30	16.87	33.24	5.54	24.22	371	0.12
53	14.65	33.27	5.96	322	50	15.00	33.30	5.90	24.68	327	0.18
63	14.20	33.28	5.99	312	75	13.63	33.31	5.97	24.98	299	0.26
73	13.76	33.30	5.97	302	100	12.41	33.43	5.92	25.31	267	0.34
93	12.84	33.42	5.93	276	150	9.64	33.65	3.55	25.98	204	0.45
108	11.86	33.43	5.83	257	200	8.65	33.94	2.53	26.36	167	0.55
122	10.88	33.48	5.23	236	250	7.92	34.06	1.93	26.57	148	0.63
					300	7.46	34.10	1.55	26.66	139	0.70
147	9.72	33.64	3.60	206	400	6.68	34.18	0.83	26.84	122	0.84
176	9.00	33.84	3.04	180	500	5.83	34.25	0.42	27.00	106	0.96
214	8.44	34.00	2.31	160	600	(5.35)	(34.32)	(0.28)	(27.12)	(95)	(1.07)
265	7.73	34.07	1.79	144							
348	7.16	34.15	1.15	130							
451	6.18	34.22	0.52	113							
597	5.35	34.31	0.29	96							

83.90

PAOLINA-T; July 6, 1958; 2158, 2215 GCT; 32°27'N, 122°43'W; sounding, 2400 fm; wind, 300°, force 2; weather, overcast; sea, moderate; wire angle, 05°, 07°.

0	19.07	33.58	5.43a)	397	0	19.07	33.58	5.43	23.95	397	0.00
10	18.71	33.57	5.37a)	390	10	18.71	33.57	5.37	24.02	390	0.04
31	18.77	33.58	5.29a)	390	20	18.73	33.57	5.35	24.02	390	0.08
61	15.99	33.53	5.77a)	330	30	18.77	33.58	5.30	24.02	390	0.12
71	15.58	33.55	5.76	320	50	18.78	33.58	5.29	24.02	390	0.20
81	14.72	33.49	5.72	307	75	15.20	33.52	5.75	24.81	315	0.28
96	13.07	33.44	5.33	278	100	12.45	33.43	5.13	25.30	268	0.36
112	11.02	33.42	4.67	244	150	9.55	33.63	3.80	25.99	203	0.48
127	10.20	33.49	4.20	224	200	8.66	33.95	2.52	26.37	167	0.57
147	9.60	33.62	3.91	205	250	7.90	34.02	2.02	26.54	150	0.65
					300	7.40	34.09	1.52	26.67	138	0.73
164	9.27	33.70	3.29	194	400	6.59	34.20	0.72	26.86	120	0.86
193	8.80	33.94	2.63	169	500	5.99	34.27	0.36	27.01	106	0.98
217	8.36	33.95	2.29	162	600	5.47	34.33	0.25	27.11	96	1.09
270	7.72	34.05	1.87	146							
354	6.88	34.16	0.99	126							
460	6.19	34.25	0.43	110							
601	5.46	34.33	0.25	96							

a) Owing to error in measuring oxygen samples, these values may be about 5 per cent high.

S10

CCOFI 5807

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

87.35 PAOLINA-T; July 4, 1958; 2130 GCT; 33°50'N, 118°37.5'W; sounding, 235 fm; wind, 270°, force 1; weather, clear; sea, moderate; wire angle, 22°.

0	19.47	33.54	6.92	410	0	19.47	33.54	6.92	23.81	410	0.00
9	18.15	33.54	6.63	380	10	18.00	33.52	6.57	24.16	377	0.04
28	11.62	33.57	4.13	242	20	12.20	33.57	4.32	25.46	253	0.07
47	10.64	33.58	3.60	225	30	11.58	33.57	4.11	25.58	242	0.10
70	10.04	33.69	3.08	208	50	10.56	33.58	3.52	25.77	224	0.14
92	9.88	33.80	3.09	196	75	10.00	33.72	3.08	25.97	204	0.20
113	9.66	33.85	2.55	189	100	9.80	33.82	3.04	26.08	194	0.25
147	9.31	33.96	1.95	176	150	9.24	34.00	1.87	26.31	172	0.34
180	9.12	34.08	1.53	164	200	9.17	34.13	1.40	26.44	160	0.42
222	9.18	34.15	1.30	159	250	8.93	34.19	1.13	26.52	152	0.50
264	8.80	34.20	1.10	150	300	8.47	34.24	1.02	26.62	142	0.58
357	7.93	34.32	0.87	128							

87.40 PAOLINA-T; July 5, 1958; 0059 GCT; 33°41'N, 118°59'W; sounding, 525 fm; wind, 330°, force 1; weather, cloudy; sea, moderate; wire angle, 00°.

0	20.56	33.62	5.86	432	0	20.56	33.62	5.86	23.58	432	0.00
10	12.83	33.62	6.14	261	10	12.83	33.62	6.14	25.38	261	0.03
29	10.74	33.62	3.85	224	20	11.22	33.62	4.33	25.68	232	0.06
46	10.24	33.66	3.49	213	30	10.70	33.62	3.82	25.78	223	0.08
56	9.88	33.78	3.22	200	50	10.08	33.70	3.37	25.94	207	0.12
67	9.77	33.82	3.12	193	75	9.64	33.89	2.70	26.16	187	0.17
77	9.63	33.89	2.60	186	100	9.57	33.93	2.57	26.21	182	0.22
97	9.58	33.93	2.58	182	150	9.41	33.98	2.22	26.27	176	0.31
112	9.51	33.95	2.46	179	200	8.93	34.14	1.75	26.48	156	0.40
127	9.48	33.96	2.32	178	250	8.75	34.29	1.10	26.62	143	0.47
153	9.40	33.99	2.21	174	300	8.15	34.30	0.80	26.72	133	0.54
183	9.16	34.09	2.00	164	400	7.07	34.30	0.53	26.87	119	0.67
223	8.98	34.27	1.34	147	500	6.38	34.31	0.32	26.98	108	0.79
280	8.32	34.29	0.85	136	600	5.78	34.38	0.30	27.11	96	0.90
365	7.44	34.30	0.69	124							
460p	6.60	34.29	0.35	113							
609p	5.73	34.38	0.30	95							

87.45 PAOLINA-T; July 5, 1958; 0501 GCT; 33°30'N, 119°19'W; sounding, 950 fm; wind, 300°, force 1; weather, cloudy; sea, moderate; wire angle, 06°.

0	17.84	33.62	5.72	366	0	17.84	33.62	5.72	24.27	366	0.00
10	11.51	33.55	4.64	242	10	11.51	33.55	4.64	25.58	242	0.03
30	10.42	33.68	3.85	214	20	10.85	33.63	4.31	25.75	225	0.05
40	10.16	33.66	3.45	211	30	10.42	33.68	3.85	25.87	214	0.08
50	9.84	33.74	3.23	200	50	9.84	33.74	3.23	26.02	200	0.12
60	9.56	33.77	3.04	193	75	9.25	33.90	2.47	26.24	179	0.16
70	9.32	33.87	2.59	182	100	8.99	34.04	2.18	26.39	165	0.21
85	9.18	33.95	2.28	174	150	8.42	34.10	1.86	26.52	152	0.29
102	8.98	34.04	2.17	164	200	8.27	34.21	1.27	26.64	141	0.36
116	8.88	34.08	1.95	160	250	7.84	34.36	1.07	26.82	124	0.43
141	8.60	34.10	1.88	154	300	7.53	34.36	0.82	26.86	120	0.49
170	8.48	34.16	1.47	148	400	6.80	34.32	0.42	26.94	113	0.61
205	8.21	34.22	1.22	140	500	6.19	34.33	0.30	27.03	104	0.72
256	7.80	34.37a)	1.05	123							
335	7.28	-	0.66								
437	6.56	34.31	0.35	110							
569	5.79	34.36	0.26	98							

a) The use of this value results in an unusual density structure, but nevertheless value was accepted in drawing property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
PAOLINA-T; July 5, 1958; 1142 GCT; 33°10'N, 120°00.5'W; sounding, 675 fm; wind, 290°, force 4; weather, overcast; sea, rough; wire angle, 13°.											87.55
1	14.98	33.62	5.86	303	0	(15.01)	(33.61)	(5.86)	(24.92)	(304)	(0.00)
11	14.64	33.67	5.73	292	10	14.65	33.67	5.74	25.04	293	0.03
30	11.79	33.67	3.94	238	20	14.50	33.67	5.62	25.08	289	0.06
60	9.61	33.79	2.95	193	30	11.79	33.67	3.94	25.62	238	0.08
71	9.42	33.83	2.72	186	50	10.18	33.75	3.20	25.97	205	0.13
79	9.33	33.84	2.61	184	75	9.40	33.83	2.67	26.16	186	0.18
94	9.06	33.93	2.28	174	100	9.04	33.93	2.23	26.30	174	0.22
109	8.98	33.94	2.18	172	150	8.38	34.06	1.58	26.50	154	0.31
124	8.70	33.95	2.08	167	200	7.83	34.17	1.11	26.67	138	0.38
142	8.46	34.02	1.71	158	250	7.58	34.21	0.89	26.74	132	0.45
162	8.24	34.10	1.45	149	300	7.32	34.26	0.69	26.82	124	0.52
190	7.95	34.18	1.14	139	400	6.72	34.30	0.43	26.93	114	0.64
214	7.70	34.16	1.08	137	500	6.20	34.32	0.31	27.01	106	0.75
268	7.50	34.23	0.83	129	600	(5.80)	(34.33)	(0.22)	(27.08)	(100)	(0.86)
350	7.00	34.28	0.55	119							
457	6.35	34.31	0.34	108							
596	5.81	34.33	0.22	100							
PAOLINA-T; July 5, 1958; 1930 GCT; 33°00'N, 120°21'W; sounding, 420 fm; wind, 320°, force 4; weather, overcast; sea, moderate; wire angle, 25°.											87.60
0	13.43	33.04	6.12	314	0	13.43	33.04	6.12	24.82	314	0.00
9	13.11	33.13	5.86	302	10	13.10	33.13	5.85	24.94	302	0.03
28	13.01	33.18	5.81	296	20	13.09	33.15	5.84	24.97	299	0.06
50	12.56	33.27	5.43	281	30	13.00	33.19	5.79	25.01	296	0.09
67	12.64	33.57	5.09	261	50	12.56	33.27	5.43	25.16	281	0.15
76	12.59	33.58	5.03	259	75	12.65	33.60	4.97	25.39	260	0.22
88	10.48	33.53	3.68	226	100	9.48	33.56	3.80	25.93	208	0.28
100	9.48	33.56	3.80	208	150	8.68	33.87	2.68	26.31	172	0.37
118	9.34	33.71	3.06	194	200	8.42	34.02	1.90	26.47	158	0.46
132	9.01	33.72	3.17	189	250	7.79	34.06	1.35	26.59	146	0.53
152	8.66	33.87	2.67	172	300	7.37	34.10	1.13	26.68	137	0.61
172	8.52	34.06u	2.18		400	6.85	34.22	0.44	26.84	122	0.74
212	8.36	34.04	1.48	155	500	(5.97)	(34.28)	(0.26)	(27.01)	(106)	(0.86)
278	7.42	34.08	1.30	140							
361	7.10	34.18	0.59	128							
481	6.16	34.27	0.30	108							
PAOLINA-T; July 6, 1958; 0205 GCT; 32°30.5'N, 121°00'W; sounding, 2380 fm; wind, 300°, force 3; weather, overcast; sea, rough; wire angle, 10°.											87.70
0	18.04	33.17	5.31	403	0	18.04	33.17	5.31	23.88	403	0.00
10	18.06	-	5.44		10	18.06	33.17	5.44	23.89	403	0.04
30	17.88	33.19	5.46	400	20	17.98	33.18	5.45	23.90	402	0.08
45	15.92	33.17	5.83	355	30	17.88	33.19	5.46	23.92	400	0.12
56	15.62	33.19	5.80	348	50	15.78	33.18	5.82	24.42	352	0.20
65	15.20	33.19	5.76	339	75	14.61	33.18	5.88	24.68	328	0.28
76	14.56	33.18	5.89	327	100	12.90	33.18	5.47	25.03	294	0.36
96	13.04	33.17	5.55	298	150	9.62	33.48	4.03	25.85	216	0.49
110	12.58	33.69u	5.15		200	8.89	33.89	2.54	26.29	174	0.59
126	11.27	33.40	4.58	249	250	8.25	34.00	2.03	26.47	157	0.67
149	9.65	33.48	4.07	216	300	7.61	34.06	1.60	26.62	143	0.75
177	9.14	33.77	3.17	187	400	6.65	34.14	0.87	26.81	125	0.89
216	8.72	33.95	2.27	167	500	6.00	34.18	0.44	26.92	114	1.02
264	8.08	34.02	1.21	153	600	(5.47)	(34.30)		(27.09)	(98)	(1.13)
346	7.08	34.11	1.21	133							
445	6.30	34.15	0.61	120							
588	5.56	34.28	0.27	100							

SIO

CCOFI 5807

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10 cm/g	ΔD dyn. m
87.80	PAOLINA-T; July 6, 1958; 0845 GCT; 32°10'N, 121°37.5'W; sounding, 2200 fm; wind, 300°, force 3; weather, overcast; sea, moderate; wire angle, 07°.										
0	18.24	33.30	5.30	398	0	18.24	33.30	5.30	23.93	398	0.00
10	18.24	33.31	5.35	398	10	18.24	33.31	5.35	23.94	398	0.04
31	18.08	33.29	5.53	396	20	18.18	33.30	5.43	23.94	397	0.08
46	16.50	33.46	5.81	347	30	18.09	33.29	5.52	23.96	396	0.12
56	15.79	33.44	5.73	333	50	16.20	33.45	5.79	24.54	341	0.19
67	15.06	33.42	5.68	320	75	14.41	33.40	5.57	24.89	307	0.27
77	14.34	33.40	5.54	306	100	12.82	33.43	4.90	25.23	275	0.35
97	13.09	33.42	5.02	280	150	9.58	33.63	3.60	25.98	204	0.47
113	11.80	33.45	4.56	254	200	8.80	33.88	2.85	26.30	174	0.57
128	11.00	33.46	4.39	240	250	8.20	34.07	1.83	26.54	150	0.65
152	9.53	33.64	3.55	202	300	7.47	34.15	1.49	26.73	133	0.72
181	8.82	33.79	2.92	181	400	6.67	34.22	0.86	26.87	119	0.85
218	8.73	33.96	2.17	166	500	6.16	34.29	0.40	27.00	107	0.97
270	7.90	34.11	1.71	144	600	5.51	34.31	0.33	27.09	98	1.08
352	6.98	34.16	1.19	128							
454	6.44	34.27	0.51	112							
600	5.51	34.31	0.33	98							
87.90	PAOLINA-T; July 6, 1958; 1525 GCT; 31°49'N, 122°14.5'W; sounding, 2435 fm; wind, 290°, force 3; weather, cloudy; sea, moderate; wire angle, 05°.										
0	18.86	33.58	5.16	394	0	18.86	33.58	5.16	23.98	394	0.00
10	18.86	33.64	5.28	388	10	18.86	33.64	5.28	24.04	388	0.04
30	18.86	33.57	5.24	394	20	18.86	33.57	5.26	23.98	394	0.08
61	15.42	33.44	6.00	326	30	18.86	33.57	5.24	23.98	394	0.12
72	14.58	33.46	5.80	307	50	18.85	33.57	5.25	23.98	394	0.20
82	14.11	33.48	5.87	296	75	14.41	33.47	5.82	24.94	302	0.28
97	12.72	33.50	5.19	267	100	12.38	33.49	5.05	25.37	262	0.36
112	11.13	33.46	4.58	242	150	9.55	33.65	3.72	26.00	202	0.47
127	10.65	33.48	4.32	232	200	8.70	33.93	2.70	26.36	168	0.57
146	9.70	33.61	3.87	208	250	8.07	34.05	2.09	26.54	151	0.65
165	9.12	33.77	3.14	187	300	7.59	34.09	1.67	26.64	141	0.72
196	8.78	33.91	2.76	171	400	6.62	34.17	0.83	26.84	122	0.86
220	8.38	34.00	2.33	158	500	5.99	34.26	0.34	27.00	107	0.98
274	7.87	34.07	1.89	146	600	5.50	34.33	0.24	27.11	96	1.09
358	6.98	34.13	1.18	130							
468	6.10	34.24	0.39	110							
607	5.45	34.34	0.24	95							
90.28	ORCA; July 3, 1958; 0555 GCT; 33°28.5'N, 117°47.5'W; sounding, 250 fm; wind, 290°, force 2; weather, partly cloudy; sea, slight; wire angle, 03°.										
0	20.87	33.68	5.98	435	0	20.87	33.68	5.98	23.55	435	0.00
10	16.64	33.55	6.30	344	10	16.64	33.55	6.30	24.50	344	0.04
30	12.42	33.51	6.07	262	20	14.07	33.52	6.16	25.05	292	0.07
50	10.89	33.53	4.02	233	30	12.42	33.51	6.07	25.37	262	0.10
75	10.36	33.62	3.77	216	50	10.89	33.53	4.02	25.67	233	0.15
99	9.79	33.73	3.36	200	75	10.36	33.62	3.77	25.84	216	0.20
123	9.60	33.87	2.88	187	100	9.75	33.73	3.35	26.02	200	0.26
162	9.34	33.98	2.43	174	150	9.42	33.94	2.62	26.24	179	0.35
173p	9.22	34.05	2.10	168	200	9.35	34.18	1.25	26.44	160	0.44
216p	9.21	34.23	1.16	154	250	8.97	34.28	1.15	26.58	146	0.52
258p	8.88	34.29	1.15	145							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{S} 10^{-5} cm^3/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{S} 10^{-5} cm^3/g	ΔD dyn. m
ORCA; July 3, 1958; 0805 GCT; 33°24.5'N, 117°55.5'W; sounding, 340 fm; wind, 320°, force 2; weather, partly cloudy; sea, slight; wire angle, 00°.											90.30
0	20.68	33.66		432	0	20.68	33.66		23.58	432	0.00
10	20.56	33.68		427	10	20.56	33.68		23.63	427	0.04
30	12.82	33.53		267	20	17.80	33.62		24.28	365	0.08
40	11.54	33.71r			30	12.82	33.58		25.31	267	0.11
50	11.26	33.58		235	50	11.26	33.58		25.65	235	0.16
60	10.80	33.58		228	75	10.28	33.65		25.87	214	0.22
70	10.41	33.64		217	100	9.83	33.78		26.05	197	0.27
85	10.04	33.69		207	150	8.98	33.99		26.35	168	0.36
99	9.84	33.78		197	200	8.48	34.11		26.52	152	0.45
114	9.49	33.80		190	250	8.45	34.25		26.64	142	0.52
138	9.18	33.96		173	300	8.30	34.33		26.73	133	0.59
167	8.77	34.03		162	400	7.30	34.33		26.87	119	0.72
199	8.48	34.11		152	500	(6.30)	(34.34)		(27.02)	(105)	(0.84)
248	8.47	34.25		142							
295	8.33	34.33		133							
397	7.35	34.33		120							
496	6.38	34.34		106							
ORCA; July 3, 1958; 1252 GCT; 33°10.5'N, 118°23.5'W; sounding, 600 fm; wind, 270°, force 3; weather, partly cloudy; sea, moderate; wire angle, 10°.											90.37
0	19.58	33.67	5.98	404	0	19.58	33.67	5.98	23.88	404	0.00
10	19.13	33.60	5.92	398	10	19.13	33.60	5.92	23.94	398	0.04
29	11.32	33.53	4.17	240	20	13.60	33.55	4.63	25.17	281	0.07
39	10.74	33.60	3.89	225	30	11.29	33.53	4.16	25.60	239	0.10
48	10.36	33.68	3.56	212	50	10.28	33.68	3.46	25.90	211	0.14
58	10.14	33.71	3.33	207	75	9.93	33.82	3.25	26.07	195	0.20
67	10.00	33.78	3.34	200	100	9.60	33.89	2.90	26.17	186	0.24
82	9.82	33.86	3.02	191	150	9.40	34.21	1.70	26.46	158	0.33
96	9.62	33.88	3.01	186	200	8.62	34.22	1.42	26.59	146	0.41
109	9.58	33.96	2.52	180	250	8.08	34.24	1.25	26.69	136	0.48
133	9.46	34.10	2.17	168	300	7.86	34.31	0.90	26.78	127	0.55
161	9.28	34.28	1.46	151	400	6.70	34.33	0.51	26.95	111	0.67
194	8.69	34.22	1.44	147	500	6.12	34.35	0.38	27.05	102	0.78
241	8.16	34.23	1.29	138							
318	7.74	34.33	0.76	125							
411	6.60	34.33	0.49	110							
538	5.96	34.36	0.33	99							
ORCA; July 3, 1958; 2107 GCT; 32°55.5'N, 118°56.5'W; sounding, 950 fm; wind, 270°, force 4; weather, cloudy; sea, moderate; wire angle, 05°.											90.45
0	17.64	33.60	4.79	363	0	17.64	33.60	4.79	24.30	363	0.00
10	17.46	33.55	5.42	362	10	17.46	33.55	5.42	24.31	362	0.04
30	10.56	33.68	3.54	216	20	11.80	33.66	3.84	25.61	239	0.07
39	10.02	33.75	3.20	203	30	10.56	33.68	3.54	25.85	216	0.09
49	9.66	33.82	3.06	192	50	9.63	33.82	3.03	26.11	191	0.13
59	9.44	33.84	2.79	186	75	9.22	33.91	2.42	26.26	177	0.18
68	9.30	33.89	2.48	180	100	9.01	33.99	2.09	26.32	169	0.22
83	9.16	33.93	2.37	175	150	8.64	34.15	1.46	26.54	151	0.30
97	9.02	33.98	2.10	170	200	8.21	34.23	1.12	26.66	139	0.37
113	8.88	34.06	1.76	162	250	7.65	34.29	0.92	26.78	127	0.44
135	8.74	34.10	1.70	156	300	7.24	34.29	0.73	26.84	122	0.50
164	8.55	34.21	1.27	145	400	6.63	34.32	0.45	26.96	111	0.62
196	8.23	34.23	1.57u	140	500	6.00	34.36	0.29	27.07	100	0.73
244	7.78	34.29	0.95	128							
322	7.10	34.29	0.67	120							
419	6.52	34.33	0.40	108							
548	5.70	34.38	0.24	95							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10^{-5} cm/g	ΔD dyn. m
90.50	ORCA; July 4, 1958; 0035 GCT; 32°44.5'N, 119°15'W; sounding, 58 fm; wind, 290°, force 4; weather, cloudy; sea, rough; wire angle, 05°.										
0	16.52	33.64		334	0	16.52	33.64		24.61	334	0.00
11	16.53	33.62		336	10	16.53	33.62		24.59	336	0.03
31	13.22	33.63		267	20	16.25	33.62		24.65	330	0.07
50	10.80	33.57		228	30	13.85	33.63		25.18	279	0.10
75	9.58	33.74		196	50	10.80	33.57		25.72	228	0.15
					75	9.58	33.74		26.06	196	0.20
90.55	ORCA; July 4, 1958; 0405, 0445 GCT; 32°34'N, 119°36.5'W; sounding, 600 fm; wind, 300°, force 4; weather, overcast; sea, rough; wire angle, 25°, 28°.										
0	14.87	33.64	6.30	300	0	14.87	33.64	6.30	24.97	300	0.00
9	14.90	33.59	6.33	304	10	14.89	33.59	6.32	24.93	304	0.03
27	14.54	33.61	5.87	294	20	14.70	33.60	6.07	24.98	299	0.06
41	12.89	-	5.36		30	14.44	33.61	5.83	25.04	293	0.09
50	11.58	33.49	4.68	248	50	11.58	33.49	4.68	25.52	248	0.14
59	11.03	33.50	4.43	238	75	10.02	33.52	4.23	25.81	219	0.20
68	10.64	33.51	4.25	230	100	9.17	33.92	3.45	26.11	191	0.26
86	9.62	33.54	4.22	212	150	8.59	34.16	2.43	26.55	150	0.34
					200	8.39	34.20	1.75	26.60	144	0.42
93	9.22	33.69	3.70	194	250	8.00	34.20	1.50	26.67	138	0.49
108	9.05	33.78	3.15	185	300	7.32	34.20	1.31	26.76	129	0.56
126	8.83	33.91	2.80	172	400	6.58	34.26	0.60	26.92	115	0.68
152	8.58	34.16	2.42	150	500	6.00	34.32	0.26	27.04	103	0.80
184	8.41	-	2.03								
230	8.24	34.20	1.53	144							
301	7.32	34.20	1.31	129							
391	6.61	34.43r	0.63								
523	5.91	34.34	0.21								
90.60	ORCA; July 4, 1958; 0840 GCT; 32°22.5'N, 119°57.5'W; sounding, 485 fm; wind, 310°, force 3; weather, cloudy; sea, rough; wire angle, 24°.										
0	15.0	33.45	6.23	316	0	15.0	33.45	6.23	24.80	316	0.00
9	15.0	33.44	6.31	317	10	15.0	33.44	6.31	24.79	317	0.03
27	14.72	33.51	6.28	306	20	15.0	33.44	6.31	24.79	317	0.06
41	14.59	33.47	5.74	306	30	14.67	33.50	6.20	24.90	306	0.09
50	14.44	33.47	5.95	303	50	14.44	33.47	5.95	24.94	303	0.16
59	14.15	33.46	5.96	298	75	13.13	33.46	5.49	25.20	278	0.23
68	14.24	33.55	5.84	293	100	10.45	33.54	4.27	25.76	225	0.29
84	11.13	33.32	4.90	252	150	8.74	34.00	2.71	26.40	164	0.39
96	10.68	33.50	4.33	232	200	8.40	34.09	1.94	26.52	152	0.47
110	9.70	33.63	3.63	206	250	7.92	34.16	1.40	26.65	140	0.54
130	9.10	33.93	3.02	175	300	7.40	34.20	1.16	26.75	130	0.61
155	8.65	34.01	2.61	162	400	6.52	34.24	0.92	26.90	116	0.74
188	8.46	34.07	2.06	155	500	6.14	34.33	0.38	27.03	104	0.85
235	8.05	34.15	1.53	143							
305	7.36	34.20	1.12	129							
396	6.59	34.24	0.96	117							
529	6.03	34.36	0.24	101							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T_3}^{-5}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T_3}^{-5}$ 10^{-5} cm/g	ΔD dyn. m

90.70

ORCA; July 4, 1958; 1546 GCT; 31°57'N, 120°34'W; sounding, 2000+ fm; wind, 300°, force 3; weather, cloudy; sea, rough; wire angle, 17°.

0	15.74	33.19	5.75	350	0	15.74	33.19	5.75	24.44	350	0.00
10	15.74	-	5.84		10	15.74	33.19	5.84	24.44	350	0.04
28	15.60	33.19	5.82	347	20	15.67	33.19	5.83	24.45	349	0.07
42	15.46	33.19	5.86	345	30	15.57	33.19	5.83	24.47	347	0.10
52	14.99	33.33	5.88	324	50	15.08	33.30	5.88	24.66	329	0.17
61	14.24	33.27	5.76	314	75	12.69	33.18	5.70	25.07	290	0.25
70	12.86	33.15	5.85	296	100	11.18	33.48	4.65	25.58	242	0.32
88	12.21	33.30	5.26	273	150	9.48	33.72	3.21	26.06	196	0.43
101	11.12	33.49	4.60	240	200	8.74	33.95	2.29	26.36	167	0.52
115	10.46	33.57	4.23	223	250	8.15	34.10	1.97	26.57	148	0.60
137	9.72	33.65	3.43	205	300	7.68	34.14	1.58	26.67	138	0.68
163	9.26	33.80	3.00	187	400	6.75	34.20	0.86	26.85	121	0.81
200	8.74	33.95	2.29	167	500	6.00	34.28	0.40	27.00	106	0.93
249	8.17	34.10	1.99	148							
326	7.45	34.16	1.41	134							
424	6.50	34.22	0.70	116							
563	5.65	34.32	0.22	99							

90.80

ORCA; July 4, 1958; 2331 GCT; 31°38.5'N, 121°20'W; sounding, 2000+ fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 14°.

0	18.10	33.31	5.76	394	0	18.10	33.31	5.76	23.98	394	0.00
9	17.96	33.26	5.34	394	10	17.95	33.26	5.34	23.98	394	0.04
28	17.78	33.25	5.35	391	20	17.83	33.25	5.33	24.00	392	0,08
44	17.64	33.30	5.52	385	30	17.76	33.25	5.37	24.01	391	0.12
53	16.58	33.51	5.90	345	50	17.56	33.44	5.57	24.44	350	0.19
62	15.58	33.37	5.94	334	75	15.25	33.46	6.05	24.75	321	0.28
72	15.45	33.45	6.06	325	100	12.57	33.44	5.09	25.29	269	0.35
91	13.89	33.47	5.90	292	150	9.58	33.60	3.92	25.94	207	0.47
104	11.96	33.42	5.13	260	200	8.63	33.85	3.03	26.30	173	0.57
119	10.68	33.46	4.73	234	250	7.86	34.02	2.48	26.55	150	0.65
142	9.80	33.56	4.11	213	300	7.28	34.09	1.80	26.68	137	0.72
171	9.05	33.71	3.47	190	400	6.50	34.25	1.06	26.92	114	0.85
207	8.54	33.89	2.93	169	500	5.87	34.33	0.70	27.06	101	0.97
258	7.75	34.04	2.37	147							
338	6.99	34.12	1.38	130							
438	6.20	34.32	0.89	106							
578	5.40	34.33	0.39								

90.90

ORCA; July 5, 1958; 0725 GCT; 31°25'N, 122°00'W; sounding, 2200 fm; wind, 320°, force 2; weather, cloudy; sea, moderate; wire angle, 15°.

0	18.56	33.51	5.49	390	0	18.56	33.51	5.49	24.02	390	0.00
10	18.56	33.54	5.54	388	10	18.56	33.54	5.54	24.04	388	0.04
29	18.40	33.51	5.60	386	20	18.48	33.52	5.58	24.03	389	0.08
43	16.05	33.42	6.14	340	30	18.38	33.51	5.61	24.06	386	0.12
53	15.81	33.46	6.19	332	50	15.92	33.44	6.17	24.59	336	0.19
62	15.70	33.47	6.28	329	75	15.52	33.54	6.29	24.76	320	0.27
71	15.58	33.53	6.29	322	100	12.95	33.44	5.60	25.21	277	0.35
89	14.44	33.45	6.03	304	150	9.66	33.62	4.18	25.95	206	0.47
104	12.42	33.43	5.47	268	200	8.78	33.91	2.80	26.32	171	0.56
117	11.04	33.44	5.04	242	250	7.95	34.06	2.17	26.57	147	0.64
140	9.97	33.56	4.46	215	300	7.35	34.12	1.70	26.70	135	0.72
167	9.28	33.73	3.68	192	400	6.48	34.24	0.95	26.91	116	0.85
204	8.68	33.93	2.71	168	500	5.80	34.32	0.57	27.06	101	0.96
255	7.89	34.07	2.15	146							
332	7.06	34.15	1.47	130							
432	6.20	34.27	0.73	109							
572	5.51	34.34	0.48	96							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_3	Z	T	S	O_2	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

93.27 ORCA; July 7, 1958; 0845 GCT; 32°56.5'N, 117°20'W; sounding, 100 fm; wind, direction missing, force 1; weather, overcast; sea, smooth; wire angle, 00°.

0	21.05	33.70	6.35	439	0	21.05	33.70	6.35	23.50	439	0.00
10	15.45	33.58	7.01	316	10	15.45	33.58	7.01	24.80	316	0.04
30	10.72	33.62	3.66	223	20	12.00	33.61	4.50	25.53	246	0.07
50	10.34	33.67	3.42	213	30	10.72	33.62	3.66	25.78	223	0.09
75	10.04	33.77	2.96	202	50	10.34	33.67	3.42	25.88	213	0.13
100	9.90	33.87	2.78	191	75	10.04	33.77	2.96	26.00	202	0.18
					100	9.90	33.87	2.78	26.11	191	0.24

93.30 ORCA; July 2, 1958; 2329 GCT;[a] 32°47.5'N, 117°30.5'W; sounding, 500 fm; wind, 270°, force 2; weather, cloudy; sea, slight; wire angle, 08°.

415	7.61	34.33	0.56	124
424	7.42	34.33	0.39	121
434	7.28	34.33	0.43	119
444	7.24	34.34	0.41	117
454	7.12	34.34	0.44	116
464	7.04	34.34	0.45	115
474	7.00	34.34	0.39	114
483	6.86	34.36u	0.35	
493	6.79	34.33	0.37	112
503	6.61	34.34	0.31	109
513	6.60	34.34	0.41	109
523	6.47	34.33	0.40	108
533	6.39	34.34	0.32	106
543	6.29	34.34	0.28	104
553	6.19	34.33	0.28	104
563	6.11	34.34	0.33	103
573	6.04	34.34	0.29	102

93.30 ORCA; July 7, 1958; 0559 GCT; 32°50'N, 117°32.5'W; sounding, 400 fm; wind, 280°, force 1; weather, overcast; sea, slight; wire angle, 00°.

0	20.78	33.69	5.83	432	0	20.78	33.69	5.83	23.58	432	0.00
10	17.68	33.58	6.49	365	10	17.68	33.58	6.49	24.28	365	0.04
30	11.28	33.53	4.41	240	20	13.20	33.54	4.97	25.25	273	0.07
45	10.56	33.63	3.88	220	30	11.28	33.53	4.41	25.60	240	0.10
55	10.20	33.64	3.78	233	50	10.35	33.63	3.84	25.85	216	0.14
65	10.10	33.69	3.65	208	75	9.99	33.79	3.26	26.04	198	0.20
75	9.99	33.79	3.26	198	100	9.82	33.87	2.95	26.12	190	0.24
95	9.86	33.86	3.02	191	150	9.67	34.03	2.26	26.27	176	0.34
109	9.78	33.90	2.82	187	200	9.48	34.13	2.00	26.38	166	0.42
123	9.78	33.96	2.55	183	250	9.20	34.24	1.50	26.51	153	0.50
147	9.71	34.00	2.31	179	300	8.52	34.28	1.09	26.66	139	0.58
175	9.56	34.09	2.09	170	400	7.56	34.34	0.67	26.84	122	0.72
213	9.42	34.16	1.85	162	500	6.82	34.35	0.46	26.95	111	0.84
265	9.03	34.26	1.29	149	600	(5.80)	(34.33)		(27.07)	(100)	(0.95)
346	7.86	34.31	0.90	128							
447	7.30	34.35	0.50	118							
589	5.92	34.33	0.45	101							

a) Test cast.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

93.31

PAOLINA-T; July 4, 1958; 0722, 0809 GCT;[a] 32°37.5'N, 117°34'W; sounding, 650 fm; wind, 240°, force 1; weather, cloudy; sea, slight; wire angle, 00°, 05°.

436	7.06	34.39	0.30	111
446	6.85	34.39	0.28	108
455	6.76	34.36	0.27	109
466	6.70	34.37	0.25	108
476	6.61	34.35	0.22	109
486	6.51	34.61r	0.22	
496	6.54	34.38	0.17	105
506	6.50	34.41	0.20	103
515	6.43	34.39	0.15	103
526	6.34	34.40	0.22	101
536	6.18	34.40	0.16	99
548	6.12	34.38	0.16	100
558	6.05	34.34	0.14	102
568	5.98	34.36	0.16	100
578	5.90	34.38	0.13	98
588	5.86	34.38	0.16	97
597	5.77	34.38	0.15	96

93.40

ORCA; July 6, 1958; 2326, 2343 GCT; 32°29.5'N, 118°10.5'W; sounding, 930 fm; wind, 300°, force 3; weather, partly cloudy; sea, moderate; wire angle, 15°, 16°.

0	17.88	33.64	5.53	365	0	17.88	33.64	5.53	24.28	365	0.00
10	17.14	33.56	5.63	354	10	17.14	33.56	5.63	24.40	354	0.04
					20	14.77	33.51	5.03	24.89	307	0.07
28	12.40	33.47	4.67	264	30	12.30	33.48	4.64	25.37	261	0.10
42	10.76	33.57	3.94	228	50	10.30	33.60	3.75	25.83	218	0.15
52	10.20	33.61	3.71	215	75	9.84	33.75	3.39	26.03	199	0.20
63	10.02	33.66	3.61	209	100	9.19	33.88	2.85	26.23	180	0.25
71	9.94	33.73	3.44	202	150	8.62	34.03	2.36	26.45	159	0.33
91	9.36	33.81	3.20	187	200	8.12	34.16	1.95	26.62	143	0.41
104	9.17	33.89	2.74	178	250	8.05	34.29	1.26	26.72	133	0.48
118	9.12	33.96	2.50	173	300	7.39	34.32	0.89	26.85	121	0.54
141	8.70	34.01	2.46	162	400	6.61	34.35	0.54	26.98	108	0.66
168	8.40	34.09	2.06	152							
205	8.08	34.16	1.93	143							
221p	7.96	34.19	1.66	138							
254	8.06	34.29	1.11	133							
309p	7.28	34.32	0.86	120							
429p	6.40	34.36	0.44	105							

93.50

ORCA; July 6, 1958; 1630 GCT; 32°01.5'N, 118°44'W; sounding, 700 fm; wind, 300°, force 2; weather, cloudy; sea, moderate; wire angle, 07°.

0	16.30	33.60	-	333	0	16.30	33.60		24.62	333	0.00
10	16.30	33.55	6.17	336	10	16.30	33.55	6.17	24.59	336	0.03
30	15.32	33.53	5.99	316	20	16.18	33.54	6.15	24.61	334	0.07
44	13.34	33.42	5.64	285	30	15.32	33.53	5.99	24.80	316	0.10
54	12.46	33.41	5.39	269	50	12.79	33.41	5.48	25.23	275	0.16
64	11.94	33.46	5.22	256	75	10.37	33.49	4.28	25.74	226	0.22
74	10.40	33.49	4.70	227	100	9.38	33.63	4.21	26.02	200	0.28
85p	9.84	33.58	4.38	212	150	8.74	34.02	2.33	26.42	162	0.37
97p	9.44	33.60	4.30	204	200	8.20	34.16	1.99	26.61	144	0.44
116p	9.10	33.80	3.45	184	250	7.66	34.19	2.00	26.71	134	0.52
140p	8.84	33.94	2.70	170	300	7.41	34.26	1.07	26.81	125	0.58
172p	8.48	34.13	1.92	150	400	6.71	34.32	0.64	26.94	112	0.70
216p	7.76	34.16	2.15	138	500	6.05	34.33	0.41	27.04	103	0.82
286p	7.52	34.25	1.20	128							
375p	6.83	34.31	0.69	114							
501p	6.04	34.33	0.40	103							

a) Test cast.

SIO

CCOFI 5807

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
93.60	ORCA; July 6, 1958; 0944, 1007 GCT; 31°43.5'N, 119°32'W; sounding, 1220 fm; wind, 290°, force 2; weather, cloudy; sea, moderate; wire angle, 23°, 23°.										
0	15.82	33.40	6.30	337	0	15.82	33.40	6.30	24.58	337	0.00
9	15.74	33.39	6.27	335	10	15.73	33.39	6.27	24.60	335	0.03
					20	15.44	33.45	6.27	24.70	325	0.07
27	15.41	33.46	6.27	324	30	15.39	33.46	6.26	24.72	323	0.10
41	15.25	33.55	6.15	314	50	14.04	33.39	6.06	24.96	301	0.16
50	14.04	33.39	6.06	301	75	11.52	33.45	5.14	25.49	250	0.23
58	13.51	33.46	5.88	285	100	9.90	33.62	4.12	25.92	210	0.29
68	12.64	33.39	5.64	274	150	8.84	33.94	2.85	26.34	170	0.38
86	10.60	33.49	4.77	231	200	8.42	34.07	2.30	26.50	154	0.47
99	9.97	33.60	4.20	212	250	7.88	34.16	1.77	26.66	140	0.54
111	9.58	33.84	3.49	189	300	7.28	34.20	1.34	26.77	129	0.61
130	9.15	33.89	3.13	178	400	6.62	34.25	0.86	26.90	116	0.74
158	8.78	33.96	2.76	167	500	5.92	34.32	0.37	27.05	102	0.85
188	8.54	34.05	2.43	157							
233	8.12	34.14	1.92	144							
305	7.24	34.20	1.30	128							
396	6.66	34.25	0.90	117							
528	5.69	34.34	0.22	98							
93.70	ORCA; July 6, 1958; 0243, 0302 GCT; 31°27.5'N, 120°14.5'W; sounding, 2000+ fm; wind, 330°, force 4; weather, cloudy; sea, moderate; wire angle, 23°, 23°.										
0	17.76	33.20	5.88	394	0	17.76	33.20	5.88	23.98	394	0.00
9	17.74	33.22	5.94	392	10	17.73	33.22	5.94	24.00	392	0.04
					20	17.38	33.20	5.95	24.06	386	0.08
18	17.42	33.20	5.94	387	30	17.12	33.22	5.98	24.13	379	0.12
32	17.08	33.22	5.99	378	50	16.40	33.56	6.26	24.34	360	0.19
40	16.86	33.22	6.11	372	75	14.70	33.39	6.33	24.82	314	0.27
49	16.46	33.25	6.23	362	100	12.35	33.46	5.44	25.35	264	0.35
57	15.86	33.30	6.34	345	150	9.50	33.64	4.10	26.00	202	0.46
74	14.71	33.39	6.33	314	200	8.48	33.88	3.14	26.35	168	0.56
86	14.00	33.35	6.28	303	250	7.79	34.02	2.32	26.56	148	0.64
98	12.60	33.46	5.54	268	300	7.10	34.10	1.73	26.70	135	0.71
116	10.92	33.50	4.73	235	400	6.58	34.19	1.27	26.86	120	0.85
139	9.87	33.57a)	4.31	214	500	5.96	34.28	0.60	27.01	106	0.96
170	8.94	33.75	3.65	185							
215	8.21	33.96	2.75	159							
284	7.38	34.07	1.90	139							
375	6.72	34.17	1.42	123							
507	5.88	34.28	0.54	105							
93.80	ORCA; July 5, 1958; 2007 GCT; 31°14'N, 120°56'W; sounding, 2000+ fm; wind, 330°, force 2; weather, cloudy; sea, moderate; wire angle, 11°.										
0	18.34	33.44	5.49	390	0	18.34	33.44	5.49	24.02	390	0.00
10	18.32	33.39	5.32	393	10	18.32	33.39	5.32	23.99	393	0.04
29	18.26	33.40	5.32	391	20	18.30	33.39	5.32	23.99	393	0.08
44	17.05	33.39	5.70	364	30	18.25	33.40	5.32	24.01	391	0.12
53	16.04	33.42	5.79	340	50	16.37	33.41	5.77	24.46	348	0.19
64	15.40	33.33	5.83	333	75	15.28	33.38	5.71	24.68	327	0.28
72	15.28	33.37	5.72	328	100	14.80	33.50	5.67	24.88	308	0.36
91	15.30	33.51	5.69	318	150	9.95	33.50	4.63	25.81	219	0.49
105	13.56	33.46	5.66	286	200	8.64	33.88	3.02	26.34	169	0.59
120	12.54	33.52	5.50	262	250	7.88	34.02	2.36	26.55	150	0.67
143	10.20	33.49	4.87	224	300	7.26	34.08	1.80	26.68	137	0.74
171	9.27	33.62	3.72	200	400	6.45	34.17	1.20	26.86	120	0.88
208	8.44	33.88	2.82	169	500	5.90	34.26	0.44	27.01	106	1.00
261	7.73	34.05	2.22	146	600	(5.28)	(34.34)		(27.14)	(93)	(1.10)
340	6.83	34.11	1.42	129							
441	6.22	34.21	0.60	114							
584	5.40	34.33	0.29	95							

a) Salinity bottle number was not recorded on the data sheet. Since standard handling and titrating procedures were used, this salinity value is assumed to be listed correctly.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^{-5} cm^3/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^{-5} cm^3/g	ΔD dyn. m

93.90

ORCA; July 5, 1958; 0507 GCT; 30°51.5'N, 121°38'W; sounding, 2000+ fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 06°.

0	18.72	33.46	5.59	398	0	18.72	33.46	5.59	23.94	398	0.00
10	18.76	33.42	5.47	402	10	18.76	33.42	5.47	23.90	402	0.04
30	18.70	33.45	5.46	398	20	18.74	33.43	5.46	23.90	401	0.08
44	18.18	33.46	5.42	385	30	18.70	33.45	5.46	23.93	398	0.12
55	15.64	33.31	6.07	340	50	15.85	33.31	6.02	24.50	344	0.19
64	15.32	33.30	5.97	333	75	15.02	33.30	5.98	24.68	327	0.28
74	15.04	33.30	5.98	328	100	13.81	33.42	5.70	25.04	293	0.36
92	14.24	33.31	5.96	300	150	10.02	33.56	4.20	25.85	216	0.49
107	13.46	33.50	5.51	282	200	8.63	33.94	2.83	26.36	167	0.59
121	12.77	33.46	5.51	271	250	7.83	34.06	2.13	26.58	147	0.67
144	10.32	33.49	4.42	226	300	7.25	34.11	1.60	26.70	135	0.74
172	9.20	33.77	3.41	188	400	6.35	34.08	0.98	26.99	117	0.87
210	8.41	33.98	2.59	160	500	5.84	34.26	0.76	27.01	106	0.99
263	7.66	34.08	2.01	143	600	(5.46)	(34.34)		(27.12)	(95)	(1.10)
344	6.80	34.14	1.17	126							
445	6.03	34.22	0.86	111							
588	5.50	34.33	0.30	96							

94.31

STRANGER; June 30, 1958; 2200, 2235 GCT;[a] 32°39'N, 117°30.5'W; sounding, 650 fm; wind, 270°, force 3; weather, partly cloudy; sea, rough; wire angle, 10°, 15°.

405	7.63	34.39[b]	0.58
413	7.52	34.38	0.41
424	7.46	34.46	0.46
432	7.40	34.42	0.52
442	7.21	34.35	0.41
451	7.16	34.36	0.42
459	7.07	34.40	0.44
469	6.94	34.38	0.41
478	6.86	34.35	0.41
487	6.82	34.36	0.42
495	6.77	34.36	0.40
505	6.69	34.38	0.41
514	6.59	34.37	0.39
523	6.50	34.37	0.28
532	6.46	34.34	0.28
541	6.38	34.41	0.33
551	6.27	34.36	0.31

97.30

ORCA; July 8, 1958; 0700 GCT; 32°15.5'N, 117°09'W; sounding, 39 fm; wind, 330°, force 2; weather, overcast; sea, smooth; wire angle, 05°.

0	18.52	33.58	5.97	384	0	18.52	33.58	5.97	24.08	384	0.00
10	16.69	33.61	6.10	340	10	16.69	33.61	6.10	24.54	340	0.04
29	11.22	33.48	4.32	242	20	12.50	33.51	4.69	25.36	263	0.07
49	10.30	33.58	3.60	219	30	11.15	33.48	4.30	25.59	241	0.09

a) Test cast.
b) Owing to mechanical difficulties, the salinity values on this cast varied excessively.

SIO

CCOFI
5807

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10^{-5} cm/g	ΔD dyn. m
97.32	ORCA; July 8, 1958; 0840 GCT; 32°11.5'N, 117°16'W; sounding, 600+ fm; wind, 320°, force 2; weather, overcast; sea, slight; wire angle, 17°.										
0	19.69	33.60	5.90	412	0	19.69	33.60	5.90	23.79	412	0.00
10	19.44	33.60	5.90	405	10	19.44	33.60	5.90	23.86	405	0.04
28	14.00	33.48	5.98	293	20	16.26	33.53	5.94	24.58	437	0.08
44	12.38	33.44	5.15	266	30	13.85	33.48	5.95	25.06	291	0.11
52	11.50	33.44	4.71	250	50	11.66	33.44	4.78	25.46	253	0.16
61	11.16	33.44	4.50	244	75	10.35	33.54	4.07	25.77	223	0.22
70	10.61	33.51	4.18	230	100	9.42	33.70	3.44	26.06	196	0.28
88	9.78	33.60	3.86	210	150	8.98	33.91	2.84	26.29	174	0.37
102	9.40	33.72	3.40	194	200	8.82	34.11	2.11	26.47	157	0.45
115	9.30	-	3.37		250	8.41	34.18	1.60	26.59	146	0.53
136	9.08	33.85	3.05	180	300	7.93	34.23	1.18	26.70	134	0.60
164	8.88	33.98	2.65	168	400	7.43	34.30	0.68	26.83	123	0.74
200	8.82	34.11	2.11	157	500	6.72	34.37	0.45	26.98	108	0.86
250	8.41	34.18	1.60	146							
329	7.68	34.25	1.01	130							
427	7.30	34.33	0.58	119							
568	6.14	34.40	0.38	99							
97.40	ORCA; July 8, 1958; 1422 GCT; 31°56'N, 117°50'W; sounding, 300 fm; wind, 320°, force 3; weather, cloudy; sea, slight; wire angle, 02°.										
0	17.08	33.54	5.12	354	0	17.08	33.54	5.12	24.39	354	0.00
10	16.95	33.53	5.34	351	10	16.95	33.53	5.34	24.43	351	0.04
30	16.45	33.56	5.27	339	20	16.80	33.54	5.34	24.46	348	0.07
39	14.11	33.34	5.81	306	30	16.45	33.56	5.27	24.56	339	0.10
49	13.11	33.40	4.67	282	50	13.01	33.40	4.64	25.18	280	0.17
59	12.08	33.42	4.53	262	75	10.97	33.51	4.21	25.64	236	0.23
69	11.52	33.49	4.26	246	100	9.43	33.61	3.73	25.98	203	0.29
82	10.32	33.53	4.19	223	150	8.80	33.90	3.00	26.31	172	0.38
96	9.52	33.59	3.68	206	200	8.35	34.04	2.84	26.49	155	0.46
112	9.21	33.68	3.92	195	250	8.04	34.19	2.48	26.66	140	0.54
134	8.91	33.80	3.20	181	300	7.52	34.21	1.35	26.74	131	0.61
162	8.72	33.97	2.71	166	400	6.64	34.28	0.96	26.92	114	0.74
195	8.38	34.04	2.88	156	500	(5.95)	(34.34)	(0.76)	(27.06)	(102)	(0.85)
242	8.11	34.19	2.52	140							
291	7.60	34.20	1.43	133							
392	6.68	34.28	0.97	115							
491	6.00	34.33	0.77	103							
97.50	ORCA; July 8, 1958; 2131, 2156 GCT; 31°36'N, 118°30.5'W; sounding, 1300 fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 25°, 32°.										
0	17.44	33.55	5.91	362	0	17.44	33.55	5.91	24.31	362	0.00
8	17.40	33.54	5.86	361	10	17.40	33.54	5.86	24.32	361	0.04
28	16.60	33.55	6.23	343	20	17.40	33.54	5.86	24.32	361	0.07
41	14.80	33.46	6.80	311	30	16.56	33.55	6.24	24.53	342	0.11
50	13.22	33.45	6.12	281	50	13.22	33.45	6.12	25.17	281	0.17
59	12.28	33.48	5.08	261	75	10.85	33.52	4.61	25.67	233	0.23
67	11.42	33.49	4.91	245	100	9.62	33.72	3.88	26.02	198	0.29
82	10.40	33.55	4.35	223	150	8.91	33.98	2.91	26.36	168	0.38
94	9.83	33.73	4.10	201	200	8.14	34.08	2.40	26.55	150	0.46
106	9.46	33.71	3.58	196	250	7.65	34.14	1.84	26.67	138	0.53
127	9.12	33.93	2.89	175	300	7.16	34.23	1.35	26.81	125	0.60
151	8.88	33.98	2.92	168	400	6.48	34.27	0.72	26.94	113	0.72
184	8.26	34.05	2.64	153	500	6.06	34.32	0.57	27.03	104	0.84
230	7.86	34.11	2.04	143							
298p	7.18	34.23	1.37	125							
396p	6.50	34.27	0.73	113							
536p	5.90	34.34	0.50	100							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

97.60

ORCA; July 9, 1958; 1214 GCT; 31°14'N, 119°08.5'W; sounding, 1900 fm; wind, 310°, force 4; weather, overcast; sea, rough; wire angle, 14°.

0	17.02	33.30	5.59	370	0	17.02	33.30	5.59	24.23	370	0.00
8	17.02	33.30	5.62	370	10	17.02	33.30	5.62	24.23	370	0.04
27	15.68	33.26	5.82	344	20	17.02	33.30	5.62	24.23	370	0.07
40	14.68	33.25	5.94	324	30	15.41	33.26	5.86	24.56	338	0.11
49	14.02	33.24	5.81	312	50	14.00	33.25	5.79	24.86	310	0.17
58	13.71	33.44	5.43	290	75	11.65	33.46	4.54	25.47	252	0.24
66	12.74	33.44	5.04	272	100	10.56	33.57	3.96	25.76	225	0.31
83	11.32	33.51	4.39	242	150	9.28	33.88	2.78	26.21	181	0.41
96	10.75	33.55	4.09	229	200	8.59	34.02	2.18	26.44	160	0.50
108	10.13	33.62	3.68	214	250	8.00	34.11	1.80	26.60	145	0.57
129	9.83	33.68	3.65	205	300	7.12	34.20	1.36	26.80	126	0.64
152	9.23	33.89	2.74	180	400	6.60	34.24	0.68	26.90	117	0.77
184	8.78	33.99	2.36	165	500	5.88	34.28	0.51	27.02	104	0.88
228	8.31	34.07	1.96	152							
298	7.18	34.20	1.40	127							
388	6.68	34.23	0.71	118							
519	5.74	34.29	0.48	102							

97.70

ORCA; July 9, 1958; 0450 GCT; 30°47.5'N, 119°47.5'W; sounding, 1900 fm; wind, 300°, force 4; weather, partly cloudy; sea, rough; wire angle, 28°.

0	17.39	33.32	5.63	377	0	17.39	33.32	5.63	24.15	377	0.00
10	17.40	33.31	5.61	378	10	17.40	33.31	5.61	24.14	378	0.04
29	17.24	33.33	5.59	373	20	17.35	33.31	5.60	24.16	377	0.08
43	16.60	33.33	5.73	359	30	17.24	33.33	5.59	24.20	373	0.11
54	16.40	33.33	5.86	354	50	16.38	33.33	5.74	24.36	357	0.19
62	15.92	33.37	5.81	341	75	14.75	33.44	5.77	24.86	310	0.27
71	15.44	33.46	5.80	324	100	12.35	33.45	5.27	25.34	265	0.34
89	13.46	33.42	5.58	287	150	9.50	33.76	3.53	26.09	193	0.46
103	11.95	33.46	5.12	256	200	8.60	33.94	2.72	26.38	166	0.55
116	11.04	33.47	4.73	240	250	7.99	33.97	2.46	26.49	155	0.63
140	9.80	33.71	3.78	202	300	7.32	34.01	1.92	26.62	143	0.71
167	9.14	33.83	3.19	182	400	6.42	34.13	1.10	26.84	122	0.85
203	8.58	33.95	2.70	165	500	5.81	34.22	0.73	26.99	108	0.97
253	7.92	33.97	2.42	154							
335	6.92	34.05	-	135							
433	6.24	34.16	0.96	118							
572	5.37	34.29	0.48	98							

97.80

ORCA; July 9, 1958; 1945 GCT; 30°21'N, 120°32'W; sounding, 2000 fm; wind, 340°, force 4; weather, cloudy; sea, rough; wire angle, 15°.

0	19.24	33.61	5.39	400	0	19.24	33.61	5.39	23.92	400	0.00
10	19.21	33.56	5.38	402	10	19.21	33.56	5.38	23.89	402	0.04
30	19.12	33.60	5.47	397	20	19.18	33.57	5.40	23.90	401	0.08
44	16.30	33.37	5.90	349	30	19.12	33.60	5.47	23.95	397	0.12
53	15.96	33.37	5.87	342	50	16.05	33.37	5.88	24.50	344	0.19
62	15.78	33.44u	5.96		75	15.46	33.37	5.70	24.63	332	0.28
70	15.58	33.36	5.69	334	100	14.90	33.44	5.79	24.81	315	0.36
89	15.31	33.40	5.75	326	150	9.78	33.50	4.68	25.84	217	0.49
102	14.73	33.44	5.81	311	200	8.76	33.78	3.33	26.21	180	0.59
115	12.55	33.40	5.46	272	250	8.01	33.98	2.46	26.49	155	0.68
138	10.42	33.44	4.85	232	300	7.32	34.05	1.91	26.65	140	0.76
165	9.38	33.57	4.58	205	400	6.27	34.17	1.10	26.88	118	0.89
201	8.76	33.78	3.33	180	500	5.64	34.25	0.67	27.03	104	1.01
251	8.01	33.98	2.46	155							
329	6.96	34.09	1.65	132							
429	6.01	34.20	0.89	112							
569	5.26	34.29	0.46	97							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_3	Z	T	S	O_2	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

97.90 ORCA; July 10, 1958; 0200 GCT; 30°15.5'N, 121°10'W; sounding, 2000+ fm; wind, 340°, force 4; weather, cloudy; sea, very rough; wire angle, 05°.

0	19.16	33.55	5.43	402	0	19.16	33.55	5.43	23.89	402	0.00
10	19.13	33.53	5.22	402	10	19.13	33.53	5.22	23.89	402	0.04
30	18.98	33.53	5.49	399	20	19.08	33.53	5.30	23.90	402	0.08
45	16.14	33.39	5.91	344	30	18.98	33.53	5.49	23.93	399	0.12
54	15.66	33.27	5.85	343	50	16.02	33.36	5.90	24.50	344	0.19
63	15.44	33.30	5.82	336	75	15.04	33.30	5.72	24.67	328	0.28
74	15.06	33.30	5.73	328	100	14.03	33.32	5.40	24.90	306	0.36
92	14.44	33.31	5.49	314	150	9.88	33.56	4.36	25.87	214	0.49
106	12.75	33.33	5.20	280	200	8.79	33.83	3.58	26.26	177	0.59
120	11.64	33.37	4.98	258	250	8.03	34.00	2.85	26.51	153	0.67
144	10.08	33.53	4.49	220							
171	9.38	33.68	3.92	197							
209	8.62	33.87	3.46	172							
261	7.81	34.04	2.56	147							

98.31 BLACK DOUGLAS; July 8, 1958; 0430 GCT;[a] 31°56'N, 117°01.5'W; sounding, 400 fm; wind, 310°, force 3; weather, overcast; sea, moderate; wire angle, 12°.

400	8.00	34.29	0.78[b]
408	7.96	34.27	0.78
417	-	34.29	0.68
425	7.78	34.25	0.75
434	7.71	34.27	0.66
443	7.66	34.54r	0.61
451	7.54	34.25	0.59
460	7.48	34.30	0.61
469	7.36	34.32	0.52
477	7.30	34.32	0.49
485	7.21	34.34	0.57
495	7.11	34.35	0.61
503	7.02	34.33	0.59
512	6.93	34.34	0.52
521	6.84	34.36	0.46
528	6.70	34.34	0.48
538	6.58	34.34	0.44

100.30 ORCA; July 13, 1958; 0535 GCT; 31°41'N, 116°46.5'W; sounding, 200 fm; wind, 200°, force 1; weather, cloudy; sea, calm; wire angle, 00°.

0	19.17	33.62	5.78	397	0	19.17	33.62	5.78	23.95	397	0.00
10	18.70	33.58	5.53	389	10	18.70	33.58	5.53	24.03	389	0.04
30	13.75	33.46	6.23	290	20	18.01	33.56	5.64	24.19	374	0.08
50	11.38	33.48	4.61	245	30	13.75	33.46	6.23	25.07	290	0.11
74	10.40	33.52	4.46	226	50	11.38	33.48	4.61	25.54	245	0.16
98	9.92	33.75	3.53	201	75	10.38	33.52	4.45	25.75	225	0.22
122	10.03	33.73r	2.88		100	9.95	33.76	3.25	26.02	200	0.28
161	9.76	33.93	2.33	184	150	9.83	33.92	2.43	26.15	187	0.37
200	9.43	34.04	2.08	172	200	9.43	34.04	2.08	26.32	172	0.47
248	9.07	34.26	1.49	150	250	9.06	34.26	1.47	26.55	150	0.55
297	8.82	34.29	1.33	144	300	(8.83)	(34.29)	(1.33)	(26.61)	(144)	(0.62)

a) Test cast.
b) All oxygen values appear to be 20 per cent high.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

100.40

ORCA; July 13, 1958; 1222 GCT; 31°21'N, 117°27'W; sounding, 1045 fm; wind, calm; weather, cloudy; sea, smooth; wire angle, 00°.

0	18.94	33.62	5.45	392	0	18.94	33.62	5.45	24.00	392	0.00
10	18.73	33.58	5.50	390	10	18.73	33.58	5.50	24.02	390	0.04
30	18.54	33.59	5.61	384	20	18.62	33.59	5.57	24.06	386	0.08
39	17.09	33.48	5.76	359	30	18.54	33.59	5.61	24.08	384	0.12
50	15.31	33.39	6.23	327	50	15.31	33.39	6.23	24.68	327	0.19
58	14.31	33.31	5.98	312	75	12.57	33.42	5.29	25.27	271	0.26
69	13.17	33.39	5.57	284	100	10.62	33.54	4.31	25.72	228	0.33
83	11.83	33.46	4.95	254	150	9.02	33.89	2.96	26.26	176	0.43
97	10.73	33.53	4.38	230	200	8.27	34.01	2.76	26.48	156	0.51
111	10.25	33.58	4.08	219	250	7.53	34.09	2.18	26.65	140	0.59
134	9.46	33.78	3.38	191	300	7.11	34.14	1.77	26.75	130	0.66
161	8.80	33.95	2.85	168	400	6.55	34.22	1.20	26.88	118	0.79
196	8.36	34.00	2.77	158	500	6.15	34.30	0.67	27.00	106	0.90
243	7.60	34.08	2.22	142							
321	6.97	34.16	1.63	127							
419	6.44	34.23	1.09	116							
548	5.98	34.34	0.46	101							

100.50

ORCA; July 11, 1958; 1343 GCT; 31°03'N, 117°57'W; sounding, 950 fm; wind, 300°, force 2; weather, overcast; sea, moderate; wire angle, 07°.

0	17.88	33.42	5.29	382	0	17.88	33.42	5.29	24.11	381	0.00
10	17.88	33.41	5.43	382	10	17.88	33.41	5.43	24.10	382	0.04
30	16.96	33.40	5.68	362	20	17.87	33.41	5.44	24.11	382	0.08
44	16.54	33.40	5.72	352	30	16.96	33.40	5.68	24.32	362	0.11
55	16.45	33.35u	5.85u		50	16.49	33.40	5.75	24.43	351	0.18
63	14.77	33.40	5.90	314	75	13.32	33.46	5.30	25.17	281	0.26
73	13.89	33.43	5.70	295	100	11.25	33.51	4.54	25.59	241	0.33
91	12.32	33.56	4.66	256	150	9.05	33.70	3.34	26.11	191	0.44
107	10.62	33.48	4.48	232	200	8.18	33.92	2.70	26.43	161	0.53
120	10.01	33.58	4.03	215	250	7.99	34.14	1.83	26.63	142	0.61
144	9.26	33.68	3.63	196	300	7.43	34.22	1.16	26.76	130	0.68
172	8.80	33.87	3.07	174	400	6.61	34.24	0.73	26.90	117	0.80
210	8.12	33.96	2.61	158	500	6.00	34.27	0.53	27.00	107	0.92
262	7.90	34.18	1.52	138	600	(5.43)	(34.36)		(27.14)	(94)	(1.03)
344	7.01	34.23	0.91	123							
444	6.29	34.25	0.62	112							
586	5.56	34.34	0.40	96							

100.60

ORCA; July 11, 1958; 0602, 0630 GCT; 30°41'N, 118°41'W; sounding, 1500 fm; wind, 280°, force 1; weather, cloudy; sea, slight; wire angle, 10°, 15°.

0	18.86	33.62	5.18	390	0	18.86	33.62	5.18	24.02	390	0.00
10	18.88	33.58	5.27	393	10	18.88	33.58	5.27	23.99	393	0.04
29	18.74	33.58	5.17	390	20	18.80	33.58	5.21	24.00	392	0.08
44	17.42	33.70	5.39	350	30	18.75	33.58	5.17	24.02	390	0.12
53	17.12	33.70	5.56	344	50	17.21	33.70	5.50	24.49	345	0.19
63	16.56	33.61	5.60	337	75	15.78	33.50	5.62	24.67	328	0.28
73	15.85	33.49	5.63	331	100	14.18	33.53	5.62	25.04	293	0.36
93	14.78	33.53	5.65	305	150	10.09	33.47	4.76	25.76	224	0.48
107	13.61	33.53	5.60	282	200	9.02	33.84	3.10	26.23	180	0.59
122	12.36	33.51	5.39	260	250	8.42	34.09	2.11	26.52	152	0.67
145	10.35	33.46	4.87	229	300	7.62	34.16	1.73	26.69	136	0.75
173	9.26	33.64	3.98	198							
210	8.94	33.93	2.69	172							
260	8.28	34.11	2.02	149							
338	7.10	34.18	1.52	128							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta^{-5}T_3$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta^{-5}T_3$ 10^{-5} cm/g	ΔD dyn. m

100.70 ORCA; July 10, 1958; 2204, 2232 GCT; 30°20.5'N, 119°26'W; sounding, 2000+ fm; wind, 310°, force 3; weather, partly cloudy; sea, moderate; wire angle, 15°, 23°.

0	19.49	33.73	5.42	397	0	19.49	33.73	5.42	23.95	397	0.00
9	19.36	33.75	5.40	392	10	19.34	33.75	5.39	24.00	392	0.04
29	19.21	33.71	5.32	392	20	19.26	33.72	5.34	24.00	392	0.08
43	17.49	33.77	5.52	347	30	19.22	33.71	5.32	24.01	391	0.12
54	17.44	33.84	5.70	341	50	17.47	33.82	5.68	24.52	342	0.19
63	17.06	33.77	5.68	337	75	16.07	33.57	5.65	24.65	330	0.28
72	16.20	33.58	5.64	332	100	15.08	33.55	5.75	24.85	311	0.36
90	15.58	33.54	5.76	321	150	10.61	33.53	4.99	25.72	228	0.49
104	14.86	33.55	5.75	306	200	9.00	33.73	3.63	26.14	188	0.60
117	13.25	33.50	5.59	278	250	8.19	33.94	2.73	26.44	160	0.69
139	11.26	33.52	5.15	240	300	7.43	34.04	2.11	26.62	143	0.76
167	9.82	33.55	4.60	214	400	6.58	34.12	1.11	26.81	125	0.90
203	8.98	33.74	3.60	186	500	5.92	34.20	0.66	26.96	111	1.03
252	8.12	33.95	2.66	159							
333	7.08	34.07	1.84	136							
434	6.30	34.15	0.84	120							
574	5.47	34.28	0.43	100							

100.80 ORCA; July 10, 1958; 1437 GCT; 30°00'N, 120°08'W; sounding, 1900 fm; wind, 330°, force 4; weather, cloudy; sea, rough; wire angle, 15°.

0	19.35	33.51	5.38	409	0	19.35	33.51	5.38	23.82	409	0.00
10	19.34	33.48	5.50	411	10	19.34	33.48	5.50	23.80	411	0.04
29	18.16	33.82	5.73	359	20	19.34	33.49	5.50	23.81	400	0.08
44	17.48	33.85	5.81	341	30	18.08	33.83	5.74	24.37	356	0.12
54	17.31	33.84	5.76	337	50	17.39	33.84	5.78	24.55	339	0.19
64	17.18	33.84	5.78	334	75	16.62	33.81	5.63	24.72	324	0.27
73	16.76	33.82	5.61	327	100	15.20	33.70	5.80	24.95	301	0.35
93	15.78	33.77	5.79	308	150	10.48	33.50	5.10	25.72	228	0.48
107	14.40	33.61	5.75	292	200	8.70	33.81	3.45	26.25	178	0.59
122	12.25	33.48	5.44	260	250	7.94	33.96	2.78	26.48	156	0.67
146	10.70	33.49	5.19	233	300	7.23	34.04	2.12	26.65	140	0.75
174	9.33	33.60	4.27	202	400	6.30	34.12	1.18	26.84	122	0.89
211	8.52	33.87	3.19	170	500	5.74	34.18	0.71	26.96	110	1.01
263	7.79	33.98	2.66	152	600	(5.19)	(34.32)		(27.14)	(94)	(1.12)
342	6.74	34.09	1.65	129							
443	6.01	34.14	0.89	117							
584	5.26	34.29	0.42	97							

100.90 ORCA; July 10, 1958; 0751 GCT; 29°42.5'N, 120°48'W; sounding, 2000+ fm; wind, 340°, force 3; weather, cloudy; sea, rough; wire angle, 15°.

0	19.70	33.59	5.25	412	0	19.70	33.59	5.25	23.79	412	0.00
10	19.70	33.57	5.27	414	10	19.70	33.57	5.27	23.77	414	0.04
28	19.74	33.64	5.19	410	20	19.72	33.62	5.22	23.80	411	0.08
43	19.67	33.81	5.24	395	30	19.74	33.65	5.19	23.82	409	0.12
52	18.40	33.84	5.60	363	50	18.95	33.83	5.45	24.15	377	0.20
63	17.65	33.85	5.58	345	75	17.62	33.91	5.48	24.54	340	0.29
72	17.63	33.89	5.50	342	100	17.26	34.03	5.46	24.73	323	0.38
90	17.61	34.05	5.40	329	150	11.78	33.60	5.05	25.57	242	0.52
104	16.91	34.00	5.55	317	200	9.34	33.76	3.96	26.11	191	0.63
118	14.62	33.82	5.44	281	250	8.47	33.92	3.10	26.38	165	0.72
139	12.84	33.68	5.20	256	300	7.72	34.01	2.38	26.56	148	0.80
166	10.36	33.54	4.89	223	400	6.68	34.12	1.46	26.82	124	0.94
202	9.27	33.78	3.92	188	500	5.80	34.24	0.77	27.00	106	1.07
252	8.41	33.93	3.04	164							
329	7.33	34.05	2.02	140							
428	6.22	34.14	0.98	120							
566	5.43	34.36	0.46	94							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m

103.30

ORCA; July 13, 1958; 1950 GCT; 31°05'N, 116°25'W; sounding, 30 fm; wind, calm; weather, cloudy; sea, smooth; wire angle, 00°.

0	15.64	33.58	6.04	320	0	15.64	33.58	6.04	24.76	320	0.00
10	13.16	33.55	5.61	272	10	13.16	33.55	5.61	25.26	272	0.03
30	11.36	-	-		20	11.98					
40	10.99	-	-		30	11.36					

103.35

ORCA; July 13, 1958; 2306 GCT; 30°55.5'N, 116°45.5'W; sounding, 600 fm; wind, 300°, force 1; weather, cloudy; sea, moderate; wire angle, 22°.

0	19.56	33.60	5.35	408	0	19.56	33.60	5.35	23.83	408	0.00
10	17.94	33.55	5.39	373	10	17.94	33.55	5.39	24.20	373	0.04
28	14.30	33.52	5.65	297	20	15.00	33.53	5.60	24.86	310	0.07
37	13.29	33.48	4.94	280	30	14.18	33.52	5.63	25.02	294	0.10
46	12.76	33.47	4.99	270	50	12.43	33.48	4.82	25.35	264	0.16
55	12.05	33.51	4.55	254	75	11.20	33.52	4.38	25.62	238	0.22
64	11.73	33.62	4.61	241	100	9.79	33.66	3.58	25.97	205	0.28
76	11.14	33.52	4.35	238	150	9.00	33.89	3.02	26.27	176	0.37
89	10.16	33.58	4.12	217	200	8.52	34.04	2.33	26.47	157	0.46
101	9.78	33.66	3.57	205	250	8.10	34.15	1.72	26.62	143	0.53
121	9.29	33.78	3.35	189	300	7.80	34.23	1.25	26.72	133	0.60
145	9.06	33.86	3.12	179	400	7.12	34.32	0.67	26.90	116	0.74
174	8.72	33.98	2.65	165	500	(6.22)	(34.39)	(0.51)	(27.06)	(101)	(0.85)
215	8.40	34.07	2.19	154							
283	7.88	34.21	1.39	136							
369	7.38	34.30	0.76	122							
487	6.35	34.28	0.53	103							

103.40

ORCA; July 14, 1958; 0216 GCT; 30°45'N, 117°05.5'W; sounding, 1040 fm; wind, 300°, force 2; weather, cloudy; sea, slight; wire angle, 06°.

0	18.50	33.43	5.52	395	0	18.50	33.43	5.52	23.97	395	0.00
10	18.16	33.39	5.57	390	10	18.16	33.39	5.57	24.02	390	0.04
30	17.68	33.47	5.58	373	20	17.93	33.44	5.57	24.12	380	0.08
40	17.30	33.41	5.67	369	30	17.68	33.47	5.58	24.20	373	0.12
49	15.91	33.34	5.91	343	50	15.78	33.34	5.92	24.54	340	0.19
60	14.82	33.35	5.97	320	75	13.12	33.43	5.60	25.17	281	0.26
68	13.95	33.42	5.78	297	100	10.78	33.45	4.73	25.63	237	0.33
83	12.24	33.44	5.42	263	150	9.19	33.82	3.33	26.19	184	0.44
97	10.84	33.44	4.85	239	200	8.30	33.89	2.85	26.38	166	0.53
112	10.45	33.51	4.21	227	250	7.60	34.05	1.92	26.61	144	0.60
135	9.68	33.70	3.61	200	300	7.11	34.13	1.57	26.74	132	0.68
163	8.80	33.89	3.10	173	400	6.60	34.22	0.97	26.89	117	0.81
196	8.35	33.89	2.89	166	500	6.00	34.32	0.63	27.03	104	0.92
243	7.68	34.04	2.03	146							
319	6.98	34.16	1.46	127							
416	6.50	34.25	0.84	115							
544	5.75	34.34	0.56	99							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10 cm/g	ΔD dyn. m

103.50 ORCA; July 14, 1958; 0802 GCT; 30°24'N, 117°43'W; sounding, 1450 fm; wind, calm; weather, cloudy; sea, smooth; wire angle, 09°.

0	18.98	33.53	5.61	399	0	18.98	33.53	5.61	23.93	399	0.00
10	18.95	33.55	5.40	397	10	18.95	33.55	5.40	23.95	397	0.04
29	18.78	33.56	5.50	392	20	18.82	33.56	5.45	23.99	393	0.08
39	18.89	33.66	5.50	388	30	18.78	33.56	5.50	24.00	392	0.12
49	17.90	33.64	5.75	366	50	17.78	33.64	5.78	24.30	363	0.19
58	17.02	33.61	5.93	348	75	16.39	33.58	5.91	24.59	336	0.28
68	16.66	33.61	5.90	340	100	15.35	33.58	5.89	24.82	314	0.36
83	16.09	33.55	5.94	332	150	10.46	33.54	4.81	25.76	225	0.50
97	15.53	33.58	5.89	317	200	8.66	33.89	3.28	26.32	171	0.60
112	13.60	33.55	5.87	280	250	8.30	34.06	2.49	26.51	153	0.68
135	10.82	33.46	4.99	237	300	8.08	34.19	1.57	26.65	140	0.76
163	9.38	33.61	4.07	202	400	7.00	34.23	0.91	26.83	123	0.89
196	8.70	33.87	3.35	173	500	6.28	34.28	0.66	26.97	110	1.02
242	8.33	34.04	2.51	155							
317	8.00	34.22	1.31	137							
414	6.84	34.23	0.87	120							
539	6.02	34.31	0.57	104							

103.60 ORCA; July 14, 1958; 1546 GCT; 29°57'N, 118°23.5'W; sounding, 1800 fm; wind, 300°, force 1; weather, cloudy; sea, slight; wire angle, 06°.

0	19.16	33.55	5.23	402	0	19.16	33.55	5.23	23.90	402	0.00
10	19.12	33.60	5.38	397	10	19.12	33.60	5.38	23.95	397	0.04
30	18.99	33.66	5.39	390	20	19.03	33.65	5.39	24.00	392	0.08
40	18.92	33.63	5.30	390	30	18.99	33.66	5.39	24.02	390	0.12
49	18.82	33.59	5.31	391	50	18.81	33.59	5.32	24.02	390	0.20
59	18.28	33.66	5.51	373	75	15.60	33.53	5.80	24.73	323	0.29
68	16.44	33.56	5.72	339	100	13.08	33.49	5.02	25.23	275	0.36
82	14.86	33.51	5.82	309	150	10.28	33.83	3.00	26.02	200	0.48
97	13.34	33.48	5.18	280	200	10.04	34.21	1.69	26.36	168	0.57
111	12.01	33.58	4.42	249	250	9.13	34.25	1.56	26.54	151	0.66
134	11.05	33.73	3.39	221	300	8.41	34.23	1.50	26.64	141	0.73
162	10.39	33.94	2.63	194	400	7.20	34.24	0.84	26.82	124	0.87
196	10.14	34.21	1.73	170	500	6.45	34.30	0.61	26.96	111	0.99
243	9.20	34.25	1.58	152							
319	8.12	34.23	1.46	138							
416	7.02	34.24	0.77	122							
543	6.17	34.34	0.55	104							

103.70 ORCA; July 14, 1958; 2202 GCT; 29°39.5'N, 119°04'W; sounding, 1800 fm; wind, 320°, force 2; weather, cloudy; sea, moderate; wire angle, 12°.

0	19.48	33.57	5.14	408	0	19.48	33.57	5.14	23.82	408	0.00
10	19.28	33.62	5.32	400	10	19.28	33.62	5.32	23.92	400	0.04
29	18.88	33.55	5.33	395	20	19.06	33.59	5.33	23.94	398	0.08
58	17.72	33.57	5.49	366	30	18.86	33.55	5.33	23.97	395	0.12
67	16.50	33.53	5.76	342	50	18.50	33.56	5.37	24.06	386	0.20
77	16.04	33.53	5.72	332	75	16.15	33.53	5.73	24.61	334	0.29
91	14.27	33.48	4.72	299	100	13.19	33.48	4.78	25.22	276	0.37
105	12.74	33.51	4.80	267	150	10.63	33.74	3.25	25.87	214	0.49
119	11.62	33.52	4.32	246	200	9.60	34.02	2.47	26.28	175	0.59
137	11.00	33.62	3.87	228	250	9.37	34.24	1.50	26.48	156	0.67
155	10.56	33.79	3.12	208	300	8.66	34.27	1.11	26.62	143	0.75
182	10.06	34.00	2.43	185	400	7.25	34.26	0.77	26.82	124	0.89
204	9.50	34.03	2.47	173	500	6.34	34.28	0.48	26.97	110	1.01
255	9.33	34.25	1.25	154							
333	8.18	34.27	1.03	136							
437	6.84	34.26	0.65	118							
572	5.78	34.31	0.33	101							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
ORCA; July 15, 1958; 0425 GCT; 29°25.5'N, 119°46.0'W; sounding, 1900+ fm; wind, 310°, force 4; weather, cloudy; sea, moderate; wire angle, 10°.											103.80
0	19.98	33.72	5.02	409	0	19.98	33.72	5.02	23.81	410	0.00
10	19.96	33.74	5.25	408	10	19.96	33.74	5.25	23.83	408	0.04
30	19.88	33.72	5.11	407	20	19.92	33.73	5.15	23.84	408	0.08
44	18.26	33.76	5.56	365	30	19.88	33.72	5.11	23.84	407	0.12
54	17.67	33.77	5.67	351	50	17.92	33.77	5.62	24.37	356	0.20
63	17.13	33.72	5.64	343	75	16.88	33.70	5.61	24.57	338	0.29
73	16.91	33.70	5.61	339	100	15.80	33.69	5.60	24.80	316	0.37
91	16.47	33.71	5.60	328	150	11.80	33.50	5.02	25.48	251	0.51
105	15.42	33.68	5.61	308	200	9.12	33.71	3.89	26.11	191	0.62
119	14.16	33.59	5.60	288	250	8.20	33.93	2.80	26.43	161	0.72
143	12.44	33.51	5.18	262	300	7.48	34.00	2.11	26.58	146	0.80
171	10.12	33.48	4.63	224	400	6.52	34.12	1.09	26.82	124	0.94
209	8.86	33.78	3.62	182	500	5.88	34.26	0.60	27.00	106	1.06
261	8.02	33.96	2.60	157	600	(5.29)	(34.34)		(27.14)	(93)	(1.16)
342	6.98	34.04	1.64	136							
443	6.21	34.20	0.74	114							
586	5.38	34.33	0.42	95							
ORCA; July 15, 1958; 1116 GCT; 29°04'N, 120°31'W; sounding, 2000 fm; wind, 340°, force 3; weather, partly cloudy; sea, moderate; wire angle, 10°.											103.90
0	20.00	33.61	5.30	418	0	20.00	33.61	5.30	23.72	418	0.00
10	19.98	33.64	5.31	416	10	19.98	33.64	5.31	23.75	416	0.04
29	19.58	33.70	5.42	402	20	19.77	33.68	5.37	23.83	408	0.08
44	17.86	33.75	5.88	356	30	19.56	33.70	5.44	23.91	401	0.12
54	17.46	33.73	5.74	349	50	17.58	33.74	5.76	24.42	352	0.20
63	17.29	33.75	5.81	344	75	17.14	33.76	5.80	24.55	339	0.29
74	17.16	33.76	5.80	340	100	16.00	33.63	5.84	24.72	324	0.37
93	16.26	33.61	5.85	331	150	12.50	33.59	5.27	25.40	258	0.52
107	15.91	33.64	5.84	321	200	9.69	33.60	4.39	25.93	208	0.64
123	15.30	33.63	5.70	309	250	8.50	33.89	3.13	26.34	169	0.74
147	12.87	33.60	5.35	263	300	7.90	34.05	2.20	26.57	148	0.82
175	10.62	33.51	4.85	230	400	6.85	34.18	1.20	26.82	124	0.96
213	9.34	33.64	4.10	200	500	5.99	34.24	0.70	26.98	109	1.08
265	8.25	33.96	2.82	160	600	(5.43)	(34.31)		(27.10)	(97)	(1.19)
345	7.50	34.14	1.77	136							
447	6.36	34.20	0.90	116							
587	5.52	34.30	0.47	99							
ORCA; July 18, 1958; 1335 GCT; 30°25'N, 116°12'W; sounding, 100+ fm; wind, 300°, force 3; weather, cloudy; sea, moderate; wire angle, 10°.											107.32
0	16.28	33.52	6.34	338	0	16.28	33.52	6.34	24.57	338	0.00
10	15.94	33.51	6.38	331	10	15.94	33.51	6.38	24.64	331	0.03
30	13.00	33.62	5.30	264	20	13.90	33.57	5.78	25.13	284	0.06
49	11.30	33.58a)	4.29	236	30	13.00	33.62	5.30	25.35	264	0.09
75	10.66	33.76	3.68	212	50	11.25	33.58	4.25	25.65	235	0.14
99	10.62	33.96	2.73	197	75	10.66	33.76	3.68	25.89	212	0.20
123	10.52	34.02	2.07	190	100	10.62	33.97	2.70	26.06	196	0.25
151	10.46	-	-		150	10.46					

a) Salinity bottle number was not recorded on the data sheet. Since standard handling and titrating procedures were used, this salinity value is assumed to be listed correctly.

SIO

CCOFI 5807

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
107.35	ORCA; July 18, 1958; 1115 GCT; 30°20'N, 116°23'W; sounding, 1000 fm; wind, 300°, force 3; weather, cloudy; sea, slight; wire angle, 27°.										
0	18.34	33.55	5.87	382	0	18.34	33.55	5.87	24.10	382	0.00
8	18.24	33.54	5.90	381	10	18.22	33.54	5.91	24.12	380	0.04
27	17.28	33.48	6.27	363	20	18.00	33.53	5.99	24.16	377	0.08
36	16.99	33.46	6.17	358	30	17.18	33.47	6.21	24.32	361	0.11
44	16.14	33.42	6.45	342	50	15.50	33.42	6.48	24.66	328	0.18
53	15.20	33.42	6.50	322	75	12.42	33.49	5.40	25.35	264	0.26
62	14.31	33.45	6.66	302	100	10.46	33.49	4.84	25.71	229	0.32
74	12.58	33.49	5.47	265	150	9.22	33.77	3.59	26.14	188	0.42
87	11.58	33.48	5.02	248	200	8.65	33.96	2.62	26.38	166	0.51
100	10.46	33.49	4.84	229	250	8.84	34.16	1.83	26.51	154	0.60
119	9.90	33.58	4.34	213	300	8.30	34.22	1.56	26.64	142	0.67
141	9.48	33.74	3.78	194	400	6.83	34.23	1.12	26.85	121	0.81
168	8.80	33.84	3.40	177	500	(6.40)	(34.34)	(0.46)	(27.00	(106)	(0.93)
209	8.98	-	2.04								
276	8.72	34.22	1.65	148							
365	7.13	34.19	1.40	127							
490	6.44	34.33	0.57	108							
107.40	ORCA; July 18, 1958; 0726 GCT; 30°10'N, 116°43'W; sounding, 1500 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 15°.										
0	18.46	33.48	5.50	390	0	18.46	33.48	5.50	24.02	390	0.00
10	18.44	33.49	5.57	390	10	18.44	33.49	5.57	24.02	390	0.04
34	16.53	33.46	6.02	348	20	18.43	33.49	5.58	24.03	389	0.08
43	15.60	33.48	6.16	326	30	17.30	33.47	5.88	24.29	364	0.12
58	14.77	33.40	6.12	315	50	15.10	33.44	6.17	24.76	319	0.18
67	14.62	33.44	6.01	309	75	14.40	33.46	5.90	24.94	303	0.26
76	14.32	33.46	5.86	301	100	12.05	33.48	5.35	25.41	258	0.33
94	12.55	33.47	5.43	266	150	9.53	33.60	4.12	25.96	206	0.45
113	11.20	33.57a)	5.17		200	8.46	33.86	3.15	26.33	170	0.54
126	10.40	33.51	4.95	226	250	8.00	34.02	2.50	26.52	152	0.63
149	9.58	33.60	4.16	206	300	7.66	34.11	1.71	26.64	141	0.70
186	8.73	33.79	3.36	179	400	6.95	34.24	0.95	26.86	120	0.84
223	8.18	33.96	2.80	158	500	6.35	34.34	0.40	27.02	105	0.96
279	7.84	34.08	1.96	145	600	5.68	34.35	0.30	27.10	97	1.06
363	7.18	34.19	1.20	128							
473	6.50	34.34	0.45	108							
620	5.58	34.35	0.30	96							
107.50	ORCA; July 18, 1958; 0044 GCT; 29°49.5'N, 117°20.5'W; sounding, 1450 fm; wind, 310°, force 5; weather, cloudy; sea, rough; wire angle, 25°.										
0	19.30	33.63	5.56	400	0	19.30	33.63	5.56	23.92	400	0.00
9	19.29	33.65	5.49	398	10	19.29	33.65	5.49	23.94	398	0.04
32	19.26	33.63	5.50	398	20	19.29	33.64	5.49	23.94	398	0.08
42	18.36	33.57	5.69	381	30	19.27	33.63	5.50	23.94	398	0.12
55	16.37	33.45	5.65	345	50	17.00	33.48	5.66	24.38	356	0.19
64	16.02	33.42	5.87	340	75	15.62	33.44	5.95	24.66	329	0.28
74	15.64	33.44	5.95	330	100	13.25	33.51	5.57	25.22	276	0.36
91	14.33	33.56	5.82	294	150	10.13	33.67	4.32	25.91	210	0.48
110	12.11	33.48	5.29	258	200	9.66	34.00	2.62	26.25	178	0.58
123	11.26	33.57	4.98	236	250	9.12	34.18	1.82	26.48	156	0.66
144	10.28	33.66	4.42	213	300	8.23	34.22	1.49	26.64	140	0.74
180	9.46	33.76	3.74	193	400	7.42	34.30	0.73	26.84	122	0.88
215	9.84	34.13	2.13	171	500	6.82	34.40	0.32	26.98	108	1.00
268	8.72	34.19	1.71	150	600	(6.14)	(34.42)	(0.27)	(27.10)	(97)	(1.11)
350	7.67	34.26	1.07	129							
454	7.14	34.38	0.36	114							
597	6.18	34.42	0.27	98							

a) Loose bottle cap; value does not fall on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm³/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm³/g	ΔD dyn. m

107.60

ORCA; July 16, 1958; 1821 GCT; 29°33.5'N, 118°01'W; sounding, 1900+ fm; wind, 330°, force 5; weather, cloudy; sea, rough; wire angle, 25°.

0	19.97	33.71	5.61	410	0	19.97	33.71	5.61	23.81	410	0.00
9	19.96	-	5.46		10	19.96	33.70	5.46	23.81	410	0.04
32	19.90	33.68	5.59	410	20	19.95	33.69	5.52	23.81	410	0.08
40	19.76	33.65	5.57	409	30	19.92	33.68	5.57	23.81	410	0.12
54	18.31	33.60	5.88	378	50	18.95	33.62	5.71	24.00	392	0.20
62	17.26	33.57	6.40	356	75	15.74	33.57	6.01	24.73	323	0.29
71	16.20	33.58	6.13	332	100	12.87	33.51	5.33	25.28	270	0.37
89	14.38	33.84a)	5.71		150	10.18	33.67	4.15	25.91	210	0.49
107	12.00	33.49	5.10	255	200	9.39	33.92	2.96	26.24	179	0.59
120	11.18	33.51	4.75	239	250	8.69	34.08	2.13	26.46	158	0.67
142	10.38	33.61	4.40	218	300	7.90	34.15	1.64	26.64	140	0.75
178	9.70	33.85	3.27	190	400	(6.75)		(1.08)			
214	9.04	33.98	2.74	170							
269	8.46	34.14	1.85	150							
352	6.94	34.16	1.30	127							
395p	6.78	-	1.10								

107.70

ORCA; July 16, 1958; 0918 GCT; 29°10'N, 118°44'W; sounding, 2000+ fm; wind, 330°, force 5; weather, partly cloudy; sea, rough; wire angle, 35°.

0	19.89	33.84	5.31	399	0	19.89	33.84	5.31	23.93	399	0.00
8	19.88	33.73	5.43	407	10	19.87	33.73	5.43	23.84	407	0.04
24	19.70	33.73	5.35	402	20	19.77	33.73	5.37	23.88	404	0.08
37	19.16	33.69	5.43	392	30	19.53	33.72	5.37	23.93	399	0.12
45	17.88	33.66	5.63	364	50	17.49	33.65	5.78	24.38	355	0.20
53	17.28	33.64	5.83	352	75	14.40	33.58	5.35	25.03	294	0.28
62	16.23	33.57	5.84	333	100	12.03	33.67	4.05	25.58	242	0.35
78	14.06	33.58	5.30	288	150	10.09	33.92	2.70	26.11	191	0.45
90	12.80	33.52	5.21	267	200	10.13	34.28	1.35	26.39	165	0.54
101	11.96	33.69	3.89	240	250	8.87	34.27	1.66	26.58	146	0.62
119	11.29	33.86	3.02	216	300	7.95	34.22	1.59	26.70	136	0.70
138	10.66	33.89	2.73	202	400	7.04	34.27	0.94	26.86	120	0.83
164	9.76	33.95	2.65	183							
202	10.12	34.29	1.30	164							
264	8.30	34.23	1.85	140							
343	7.57	34.22	1.31	130							
465	6.42	34.47b)	0.59	98							

107.80

ORCA; July 16, 1958; 0215 GCT; 28°51'N, 119°19'W; sounding, 2000+ fm; wind, 340°, force 5; weather, cloudy; sea, rough; wire angle, 23°.

0	19.68	33.63	5.42	409	0	19.68	33.63	5.42	23.82	409	0.00
9	19.66	33.62	5.43	409	10	19.63	33.62	5.44	23.82	409	0.04
28	19.36	33.70	5.36	396	20	19.47	33.67	5.37	23.90	401	0.08
42	19.22	33.70	5.36	392	30	19.34	33.70	5.36	23.96	396	0.12
51	19.16	33.72	5.41	390	50	19.17	33.72	5.40	24.02	390	0.20
60	18.17	33.66	5.59	370	75	16.73	33.56	5.74	24.49	345	0.29
69	17.20	33.58	5.75	354	100	14.70	33.55	5.48	24.94	302	0.38
85	15.94	33.52	5.73	330	150	10.57	33.74	3.49	25.90	212	0.50
96	15.06	33.55	5.56	310	200	9.85	34.04	2.16	26.24	179	0.60
109	13.72	33.55	5.32	282	250	8.88	34.16	2.00	26.50	154	0.69
127	11.42	33.61	4.19	236	300	8.10	34.21	1.45	26.66	139	0.76
151	10.50	33.75	3.48	210	400	7.62	34.35	0.56	26.84	122	0.90
183	9.54	33.86	2.26	186	500	6.39	34.32	0.42	26.98	108	1.02
229	9.23	34.14	2.13	161							
298	8.10	34.21	1.47	139							
389	7.75	34.35	0.59	124							
518	6.12	34.31	0.39	105							

a) Loose bottle cap; value does not fall on property curve.
b) Loose bottle cap; value falls on property curve.

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5807

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10 cm/g	ΔD dyn. m
107.90	ORCA; July 15, 1958; 1716, 1755 GCT; 28°26'N, 120°08'W; sounding, 2000 fm; wind, 320°, force 2; weather, cloudy; sea, moderate; wire angle, 15°, 20°.										
0	20.16	33.68	5.17	417	0	20.16	33.68	5.17	23.74	417	0.00
10	19.96	33.66	5.27	414	10	19.96	33.66	5.27	23.77	414	0.04
28	19.68	33.71	5.22	403	20	19.80	33.69	5.22	23.84	407	0.08
43	17.96	33.71	5.82	362	30	19.54	33.71	5.27	23.93	399	0.12
52	17.48	33.78	5.65	346	50	17.50	33.78	5.66	24.47	347	0.20
62	17.34	33.78	5.61	343	75	17.07	33.79	5.43	24.58	337	0.28
71	17.12	33.78	5.46	338	100	16.66	33.82	5.52	24.70	325	0.37
89	16.99	33.82	5.37	332	150	10.98	33.48	4.78	25.62	238	0.51
102	16.60	33.82	5.57	323	200	9.64	33.89	3.10	26.17	186	0.61
116	14.22	33.58	5.51	290	250	8.80	34.09	2.41	26.46	158	0.70
138	11.48	33.47	4.95	247	300	8.31	34.19	1.87	26.61	144	0.78
					400	7.98	34.33	0.95	26.78	128	0.92
164	10.52	33.51	4.49	228	500	7.00	34.32	0.55	26.90	116	1.05
199	9.64	33.89	3.10	186							
249	8.80	34.09	2.41	158							
326	8.14	34.22	1.64	139							
423	7.94	34.36a)	0.83	125							
562	6.14	34.27a)	0.34	108							
110.33	ORCA; July 18, 1958; 1812 GCT; 29°50'N, 115°52'W; sounding, 50+ fm; wind, 300°, force 2; weather, overcast; sea, moderate; wire angle, 05°.										
0	13.66	33.58	6.50	280	0	13.66	33.58	6.50	25.18	280	0.00
10	12.97	33.58	5.95	266	10	12.97	33.58	5.95	25.32	266	0.03
30	11.46	33.64	4.44	235	20	12.12	33.61	5.04	25.51	248	0.05
50	10.92	33.71	3.56	220	30	11.46	33.64	4.44	25.65	235	0.08
75	10.64	33.84	2.33	206	50	10.92	33.71	3.56	25.80	220	0.12
					75	10.64	33.84	2.33	25.96	206	0.18
110.35	ORCA; July 18, 1958; 1946 GCT; 29°47'N, 116°00'W; sounding, 800 fm; wind, 300°, force 2; weather, partly cloudy; sea, moderate; wire angle, 06°.										
0	15.23	33.57	6.50	312	0	15.23	33.57	6.50	24.84	312	0.00
11	14.00	33.58	6.51	286	10	14.10	33.58	6.50	25.10	288	0.03
31	12.84	33.57	5.45	264	20	12.90	33.53	5.77	25.29	269	0.06
41	11.84	33.48	4.85	253	30	12.86	33.57	5.47	25.34	264	0.08
50	11.62	33.61	4.35	240	50	11.62	33.61	4.35	25.60	240	0.13
60	11.30	33.68	3.95	229	75	10.86	33.72	3.59	25.81	219	0.19
70	11.05	33.64u	3.71		100	10.42	33.78	3.18	25.95	206	0.25
84	10.58	33.73	3.40	213	150	9.64	34.00	2.50	26.25	178	0.34
99	10.42	33.78	3.18	206	200	9.38	34.21	1.74	26.46	158	0.43
114	10.16	33.86	2.95	196	250	8.94	34.27	1.24	26.58	147	0.51
137	9.82	33.96	2.60	184	300	8.73	34.33	0.93	26.66	139	0.58
166	9.40	34.04	2.34	171	400	7.92	34.34	0.66	26.80	126	0.72
199	9.38	34.21	1.74	158	500	6.72	34.32	0.50	26.95	112	0.84
247	8.98	34.27	1.29	147							
323	8.60	34.36	0.78	135							
419	7.68	34.34	0.63	124							
548	6.04	34.31	0.42	104							

a) Salinity samples at 423 and 562 meters appear to have been reversed; they are assumed to be listed in correct order.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T_{-5}}^{3}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T_{-5}}^{3}$ 10^{-5} cm/g	ΔD dyn. m
ORCA; July 18, 1958; 2310 GCT; 29°35'N, 116°19'W; sounding, 1174 fm; wind, 300°, force 4; weather, partly cloudy; sea, moderate; wire angle, 24°.											110.40
0	19.18	33.54	5.51	403	0	19.18	33.54	5.51	23.89	403	0.00
9	18.98	33.57	5.57	396	10	18.96	33.57	5.57	23.96	396	0.04
28	18.66	33.51	5.55	393	20	18.78	33.54	5.55	23.98	394	0.08
40	16.19	33.45	6.08	341	30	18.35	33.50	5.61	24.06	386	0.12
49	15.82	33.44	6.13	334	50	15.80	33.44	6.12	24.62	333	0.19
58	15.51	33.47	6.06	325	75	13.97	33.47	5.68	25.04	294	0.27
67	14.86	33.49	5.90	310	100	11.40	33.49	4.68	25.55	244	0.34
83	12.80	33.44	5.42	273	150	10.54	33.77	4.48	26.09	193	0.45
96	11.59	33.48	4.79	248	200	8.76	34.03	2.80	26.42	162	0.54
108	11.14	33.51	4.57	238	250	9.36	34.36	1.19	26.58	146	0.62
127	9.87	33.57	4.57	213	300	8.92	34.40	1.02	26.68	137	0.69
151	9.50	33.77	3.44	192	400	7.55	34.34	0.48	26.84	122	0.82
182	8.76	33.89	3.00	172	500	6.67	34.36	0.43	26.98	109	0.94
228	9.50	34.33	1.32	151							
299	8.92	34.40	1.02	137							
388	7.68	34.34	0.49	123							
522	6.46	34.36	0.42	106							
ORCA; July 19, 1958; 0600 GCT; 29°12'N, 116°58'W; sounding, 1900 fm; wind, 310°, force 3; weather, cloudy; sea, moderate; wire angle, 05°.											110.50
0	19.16	33.58	5.67	400	0	19.16	33.58	5.67	23.92	400	0.00
10	19.14	33.58	5.59	400	10	19.14	33.58	5.59	23.92	400	0.04
30	19.06	33.64	5.67	393	20	19.10	33.61	5.62	23.96	396	0.08
45	19.06	33.62	5.74	395	30	19.06	33.64	5.67	23.98	393	0.12
55	16.84	33.54	6.32	349	50	19.02	33.62	5.76	23.98	394	0.20
65	16.23	33.52	6.05	337	75	15.52	33.48	6.23	24.71	325	0.29
75	15.52	33.48	6.23	325	100	13.13	33.53	5.43	25.25	273	0.36
95	13.52	33.55	5.64	279	150	10.73	33.86	3.10	25.96	205	0.48
109	12.43	33.50	5.11	262	200	10.08	34.14	1.99	26.28	175	0.58
124	11.40	33.62	4.41	235	250	9.39	34.22	1.71	26.46	158	0.67
148	10.72	33.86	3.05	206	300	8.98	34.23	1.19	26.54	150	0.75
176	10.55	34.12	2.15	184	400	8.07	34.23	0.51	26.68	138	0.90
214	9.82	34.14	1.91	170	500	7.12	34.23	0.37	26.82	124	1.03
265	9.22	34.23	1.59	154	600	(6.10)	(34.22)		(26.94)	(112)	(1.16)
344	8.61	34.22	0.75	146							
444	7.62	34.23	0.40	131							
584	6.24	34.22	0.32	114							
ORCA; July 19, 1958; 1247 GCT; 28°47.5'N, 117°41'W; sounding, 1900 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 10°.											110.60
0	19.41	33.58	5.42	406	0	19.41	33.58	5.42	23.86	406	0.00
10	19.40	33.58	5.49	406	10	19.40	33.58	5.49	23.86	406	0.04
29	19.34	33.57	5.54	405	20	19.38	33.58	5.51	23.86	405	0.08
44	17.88	33.53	5.88	373	30	19.33	33.57	5.56	23.87	404	0.12
54	17.20	33.50	5.98	360	50	17.45	33.51	5.93	24.28	365	0.20
64	16.29	33.51	6.00	338	75	15.60	33.50	5.94	24.70	326	0.28
74	15.64	33.48	5.96	327	100	13.10	33.52	5.69	25.24	274	0.36
93	13.97	33.55	5.83	288	150	10.23	33.79	3.03	25.98	204	0.48
107	12.20	33.48	5.40	260	200	9.85	34.00	2.56	26.21	182	0.58
122	11.04	33.52	4.60	236	250	8.70	34.18	1.70	26.54	150	0.66
145	10.38	33.75	3.30	208	300	8.23	34.23	1.29	26.66	139	0.74
172	9.98	33.94	2.57	187	400	6.92	34.25	0.78	26.86	120	0.88
210	8.82	33.98	2.55	167	500	6.19	34.30	0.50	27.00	107	0.99
262	8.61	34.20	1.62	147	600	(5.80)	(34.38)		(27.11)	(96)	(1.10)
341	7.77	34.25	1.06	131							
443	6.48	34.25	0.68	114							
585	5.88	34.36	0.28	99							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{-5}T_3$ 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{-5}T_3$ 10 cm/g	ΔD dyn. m
110.70	ORCA; July 19, 1958; 2029 GCT; 28°32'N, 118°17.5'W; sounding, 1700 fm; wind, 340°, force 3; weather, cloudy; sea, moderate; wire angle, 03°.										
0	20.80	33.75	5.07	428	0	20.80	33.75	5.07	23.62	428	0.00
10	20.44	33.86	5.12	411	10	20.44	33.86	5.12	23.80	411	0.04
30	19.10	33.68	5.47	391	20	20.21	33.83	5.18	23.84	408	0.08
45	16.62	-	5.70		30	19.10	33.68	5.47	24.01	391	0.12
55	15.62	33.58	5.78	320	50	16.06	33.59	5.73	24.67	328	0.19
65	14.58	33.57	5.66	298	75	13.47	33.55	4.98	25.20	278	0.27
75	13.47	33.55	4.98	278	100	11.60	33.64	3.90	25.64	236	0.34
95	11.98	33.62	4.01	245	150	9.62	33.83	3.05	26.12	190	0.44
109	11.02	33.68	3.71	224	200	8.92	34.01	2.24	26.38	166	0.53
124	10.46	33.74	3.32	210	250	8.30	34.12	1.75	26.56	149	0.62
147	9.68	33.82	3.10	192	300	7.78	34.17	1.39	26.68	137	0.69
175	9.20	33.90	2.71	178	400	6.85	34.27	0.62	26.88	118	0.82
213	8.79	34.06	2.03	160	500	6.18	34.33	0.36	27.03	104	0.94
267	8.06	34.14	1.62	144	600	(6.40)	(34.36)	(0.22)	(27.15)	(93)	(1.04)
347	7.32	34.22	0.96	128							
449	6.54	34.31	0.44	110							
593	5.45	34.36	0.22	94							
110.80	ORCA; July 20, 1958; 0130 GCT; 28°17'N, 118°56'W; sounding, 2000+ fm; wind, 340°, force 3; weather, partly cloudy; sea, moderate; wire angle, 13°.										
0	20.30	33.74	5.18	416	0	20.30	33.74	5.18	23.74	416	0.00
10	20.06	33.73	5.23	412	10	20.06	33.73	5.23	23.79	412	0.04
29	19.86	33.73	5.25	406	20	19.97	33.73	5.24	23.82	409	0.08
43	19.58	33.69	5.26	402	30	19.84	33.73	5.25	23.86	406	0.12
54	19.46	33.73	5.25	397	50	19.48	33.73	5.25	23.94	398	0.20
62	19.44	33.70	5.31	398	75	18.38	33.67	5.48	24.18	374	0.30
72	19.02	33.69	5.42	389	100	14.38	33.60	5.14	25.05	292	0.38
90	15.48	33.59	5.48	316	150	10.38	33.84	2.57	26.01	201	0.50
104	13.72	33.61	4.84	278	200	9.49	33.88	1.92	26.18	184	0.60
117	11.84	33.71	3.54	236	250	8.99	34.10	1.33	26.44	160	0.69
140	10.58	33.80	2.79	207	300	8.17	34.17	1.23	26.62	143	0.77
167	10.02	33.91a)	2.00	190	400	6.99	34.25	0.88	26.85	121	0.91
203	9.54	33.89a)	1.66	184	500	6.10	34.28	0.57	26.99	108	1.03
252	8.97	34.11	3.16r	159							
332	7.68	34.20a)	1.17	134							
430	6.76	34.26a)	0.78	117							
569	5.42	34.29a)	0.38	99							
113.30	BLACK DOUGLAS; July 21, 1958; 2152 GCT; 29°22.5'N, 115°17.5'W; sounding, 30 fm; wind, 290°, force 4; weather, clear; sea, rough; wire angle, 01°										
0	16.08	33.59	7.54b)	328	0	16.08	33.59	7.54	24.66	329	0.00
9	14.16	33.58	6.75	289	10	13.98	33.58	6.66	25.12	285	0.03
28	11.52	33.60	4.70	238	20	12.30	33.59	5.39	25.46	253	0.06
37	11.06	33.68	4.03	225	30	11.39	33.61	4.53	25.64	236	0.08

a) Salinity bottle numbers were not recorded on the data sheet. Since standard handling and titrating procedures were used, these salinity values are assumed to be in correct order.

b) All oxygen values appear to be 20 per cent high.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

113.35

BLACK DOUGLAS; July 21, 1958; 1909 GCT; 29°15.5'N, 115°37.5'W; sounding, 480 fm; wind, 320°, force 3; weather, overcast; sea, rough; wire angle, 15°.

8	14.96	33.53	7.45a)	309	0	15.0	(33.53)	(7.45)	(24.86)	(310)	(0.00)
17	14.81	33.48	7.62	310	10	14.90	33.52	7.50	24.87	309	0.03
35	14.29	33.49	7.08	298	20	14.77	33.48	7.61	24.87	309	0.06
48	13.37	33.48	6.54	281	30	14.55	33.49	7.37	24.94	303	0.09
57	12.48	33.56	5.73	259	50	13.25	33.48	6.45	25.18	279	0.15
66	11.54	33.60	5.03	238	75	11.14	33.62	4.59	25.70	230	0.21
75	11.14	33.62	4.59	230	100	10.75	33.84	3.60	25.93	208	0.27
93	10.96	33.76	3.90	217	150	10.65	34.21	2.13	26.24	179	0.37
105	10.58	33.90	3.25	200	200	10.23	34.23	1.56	26.33	170	0.45
118	10.60	34.02	2.66	192	250	9.90	34.33	1.52	26.47	157	0.54
140	10.78	34.20	-	182	300	9.27	34.33	1.15	26.57	148	0.62
165	10.42	34.22	2.03	174	400	8.35	34.35	0.84	26.74	132	0.76
199	10.24	34.23	1.57	170	500	6.98	34.38	0.53	26.95	111	0.89
247	9.92	34.33	1.54	157							
322	9.01	34.33	1.05	144							
416	8.18	34.36	0.80	129							
552	6.15	34.38	0.40	100							

113.40

BLACK DOUGLAS; July 21, 1958; 1511 GCT; 29°02'N, 115°59.5'W; sounding, 975 fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 13°.

10	18.43	33.62	6.78a)	380	0	18.5	(33.62)	(6.78)	(24.11)	(381)	(0.00)
19	18.08	33.58	6.93	374	10	18.43	33.62	6.78	24.12	380	0.04
37	14.60	33.54	7.27	301	20	18.03	33.58	6.93	24.19	374	0.08
51	12.92	33.50	6.46	271	30	16.00	33.55	7.19	24.66	329	0.11
59	11.90	33.55b)	5.49	249	50	13.07	33.50	6.59	25.24	274	0.17
68	11.68	33.58	5.16	243	75	11.48	33.59	5.03	25.61	239	0.24
76	11.45	33.59	5.00	238	100	10.95	33.82	3.57	25.89	212	0.29
93	11.06	33.70	4.09	223							
104	10.88	33.87	3.33	208							
250c)	9.44	33.47	0.56								
330	8.18	34.39	0.71								
448	7.31	34.38	0.39								

113.50

BLACK DOUGLAS; July 21, 1958; 0732 GCT; 28°40'N, 116°37.5'W; sounding, 1700 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 36°.

6	18.81	33.53	6.60a)	395	0	18.8	(33.53)	(6.60)	(23.97)	(395)	(0.00)
13	18.82	33.49	6.50	398	10	18.81	33.53	6.55	23.96	396	0.04
28	18.80	32.51	6.50	396	20	18.81	33.50	6.50	23.94	398	0.08
40	17.28	33.49	6.85	362	30	18.78	33.51	6.50	23.96	396	0.12
46	16.04	33.44	7.08	338	50	15.90	33.45	7.08	24.60	335	0.19
54	15.76	33.46	7.10	330	75	14.25	33.44	7.27	24.96	301	0.27
62	15.26	33.42	7.19	323	100	12.27	33.61	5.73	25.47	252	0.34
76	14.22	33.44	7.27	301	150	10.16	33.93	3.42	26.11	191	0.45
86	12.97	33.53	6.47	270	200	8.98	34.09	3.00	26.43	161	0.54
97	12.58	33.60	6.03	257	250	9.18	34.36	1.52	26.61	144	0.62
111	11.12	33.64	4.82	228	300	8.85	34.41	0.95	26.71	135	0.69
127	10.52	33.78	3.90	208	400	7.32	34.32	0.93	26.83	123	0.83
150	10.16	33.93	3.42	191							
180	8.80	33.92	3.69	170							
233	9.20	34.30	1.57	149							
305	8.80	34.41	0.94	134							
414	7.07	34.28	0.93	120							

a) All oxygen values appear to be 20 per cent high.
b) Loose bottle cap; value falls on property curve.
c) Pretrip; depth too uncertain for interpolation.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

113.60 BLACK DOUGLAS; July 21, 1958; 0040 GCT; 28°22'N, 112°16.5'W; sounding, 2000 fm; wind, 340°, force 4; weather, partly cloudy; sea, rough; wire angle, 15°.

8	19.40	33.52	6.51a)	410	0	19.4	(33.52)	(6.51)	(23.81)	(410)	(0.00)
17	19.23	33.49	6.57	408	10	19.38	33.52	6.52	23.81	410	0.04
36	18.88	33.48	6.51	401	20	19.18	33.49	6.56	23.84	407	0.08
62	16.37	33.55	7.14	337	30	19.00	33.48	6.53	23.88	403	0.12
71	16.04	33.53	7.00	332	50	18.07	33.50	6.70	24.14	379	0.20
80	15.80	33.49	7.05	330	75	15.93	33.51	7.02	24.64	331	0.29
93	14.58	33.49	7.04	304	100	13.80	33.53	6.83	25.12	286	0.37
106	13.04	33.57	6.57	268	150	9.98	33.51	5.41	25.81	219	0.49
119	11.58	33.48	6.27	248	200	9.69	33.96	3.07	26.22	181	0.59
136	10.36	33.49	5.74	226	250	10.00	34.37	1.28	26.48	156	0.68
152	9.94	33.51	5.39	218	300	9.18	34.40	1.08	26.64	141	0.76
177	10.00	33.88	3.43	192	400	8.15	34.41	0.51	26.82	124	0.90
198b)	9.66	33.96	3.14	181	500	7.12	34.45	0.37	26.99	108	1.02
244	10.05	34.36	1.31	158							
318	8.91	34.40	1.00	137							
412	8.09	34.41	0.47	124							
544	6.60	34.47	0.34	99							

113.70 BLACK DOUGLAS; July 20, 1958; 1817 GCT; 28°03'N, 117°55'W; sounding, 1500 fm; wind, 350°, force 3; weather, cloudy; sea, rough; wire angle, 12°.

10	20.03	33.69	6.25a)	413	0	20.1	(33.69)	(6.25)	(23.76)	(415)	(0.00)
19	19.95	33.69	6.04	411	10	20.03	33.69	6.25	23.78	413	0.04
37	19.70	33.68	6.50	406	20	19.95	33.69	6.05	23.80	411	0.08
51	19.30	33.64	6.58	399	30	19.80	33.69	6.30	23.83	408	0.12
60	18.32	33.63	6.20	376	50	19.32	33.64	6.58	23.93	399	0.20
69	17.20	33.54	6.90	356	75	16.98	33.58	6.76	24.45	349	0.30
78	16.89	33.59	6.71	346	100	15.80	33.58	6.70	24.72	323	0.38
96	16.14	33.58	-	330	150	10.62	33.54	4.82	25.72	228	0.52
109	14.96	33.57	6.71	306	200	9.35	33.92	3.19	26.24	178	0.62
123	13.35	33.60	6.41	272	250	8.35	34.04	2.56	26.49	155	0.71
144	11.18	33.53	4.67	237	300	7.91	34.20	1.62	26.68	137	0.79
168	9.68	33.57	5.07	210	400	7.10	34.28	0.75	26.86	120	0.92
202	9.30	33.93	3.12	178	500	6.25	34.32	0.41	27.00	106	1.04
249	8.37	34.04	2.58	155							
322	7.79	34.23	1.32	133							
415	6.94	34.29	0.69	117							
547	5.92	34.34	0.34	100							

113.80 BLACK DOUGLAS; July 20, 1958; 1158 GCT; 27°41'N, 118°36'W; sounding, 2000 fm; wind, 020°, force 2; weather, partly cloudy; sea, moderate; wire angle, 16°.

10	20.05	33.73	6.47a)	411	0	20.0	(33.73)	(6.47)	(23.80)	(411)	(0.00)
18	20.07	33.70	6.60	413	10	20.05	33.73	6.47	23.80	411	0.04
36	19.95	33.66	6.65	413	20	20.07	33.70	6.60	23.77	414	0.08
50	18.58	33.59	6.76	385	30	20.03	33.67	6.63	23.77	414	0.12
59	17.63	33.58	6.98	364	50	18.58	33.59	6.76	24.07	385	0.20
68	17.24	33.56	7.19	356	75	17.05	33.64	6.99	24.48	346	0.29
76	17.04	33.64	6.98	346	100	16.52	33.66	6.80	24.62	333	0.38
94	16.66	33.66	6.78	336	150	10.66	33.61	4.77	25.78	223	0.52
108	15.88	33.63	6.97	322	200	9.88	33.93	3.23	26.16	187	0.62
116	13.92	33.55	6.73	287	250	9.68	34.20	2.01	26.40	164	0.71
142	11.09	33.57	5.09	233	300	9.27	34.30	1.42	26.54	150	0.80
168	10.18	33.70	4.28	208	400	7.88	34.31	0.87	26.77	129	0.94
203	9.88	33.93	3.23	187	500	6.65	34.32	0.62	26.96	111	1.07
252	9.66	34.20	1.96	164							
327	9.00	34.33	1.16	143							
427	7.56	34.30	0.82	125							
558	6.04	34.34	0.44	102							

a) All oxygen values appear to be 20 per cent high.

b) The bathythermograph trace seems to indicate considerable mixing at various levels. Since these features may be transient, they have not been incorporated in the property curves used for determining the interpolated values.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m
BLACK DOUGLAS; July 18, 1958; 1130 GCT; 28°56'N, 114°41'W; sounding, 40 fm; wind, 320°, force 2; weather, overcast; sea, moderate; wire angle, 01°.											117.26
0	17.34	33.59	7.25a)	356	0	17.34	33.59	7.25	24.38	356	0.00
9	17.34	33.64	7.34	352	10	17.35	33.64	7.34	24.42	352	0.04
28	14.08	33.56	6.96	289	20	15.72	33.60	7.15	24.76	320	0.07
46	11.77	33.65	-	239	30	13.85	33.56		25.12	285	0.10
BLACK DOUGLAS; July 18, 1958; 1348 GCT; 28°48'N, 114°56.5'W; sounding, 55 fm; wind, 280°, force 2; weather, fog; sea, moderate; wire angle, 10°.											117.30
4	17.13	33.56	7.24a)	354	0	17.1	(33.56)	(7.24)	(24.40)	(354)	(0.00)
13	17.14	33.60	7.19	351	10	17.15	33.59	7.19	24.42	352	0.04
31	13.63	33.52	6.40	283	20	16.99	33.60	7.09	24.47	347	0.07
49	12.47	33.60	5.20	256	30	13.75	33.52	6.43	25.12	286	0.10
72	11.61	33.89	3.26	219	50	12.45	33.60	5.16	25.44	255	0.16
					75	(11.60)	(33.89)	(3.25)	(25.82)	(219)	(0.22)
BLACK DOUGLAS; July 18, 1958; 1653 GCT; 28°38'N, 115°16'W; sounding, 100 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 30°.											117.35
8	16.60	33.53	7.25a)	344	0	16.6	(33.53)	(7.25)	(24.50)	(344)	(0.00)
16	16.54	33.58	7.27	339	10	16.60	33.54	7.25	24.51	343	0.03
32	16.09	33.56	7.23	330	20	16.44	33.58	7.26	24.58	337	0.07
48	15.04	33.58	6.81	308	30	16.13	33.56	7.25	24.63	332	0.10
68	12.66	33.57	5.33	261	50	14.65	33.58	6.53	24.98	299	0.16
108	10.94	33.87	3.26	208	75	12.03	33.58	5.01	25.50	249	0.23
132	10.96	34.19	1.95	185	100	10.85	33.72	4.30	25.82	218	0.29
BLACK DOUGLAS; July 19, 1958; 0515 GCT; 28°28'N, 115°35.5'W; sounding, 400 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 16°.											117.40
0	19.98	33.75	6.92a)	407	0	19.98	33.75	6.92	23.83	408	0.00
9	19.99	33.77	7.19	406	10	19.99	33.77	7.19	23.85	406	0.04
27	16.32	33.68	7.34	327	20	19.95	33.77	7.20	23.86	405	0.08
41	13.40	33.62	5.58	271	30	16.05	33.68	7.25	24.74	322	0.12
50	12.18	33.60	5.11	250	50	12.18	33.60	5.11	25.49	250	0.17
59	11.72	33.62	4.92	240	75	10.97	33.70	4.36	25.80	221	0.23
67	11.12	33.65	4.74	228	100	11.70	34.24	1.70	26.08	194	0.29
85	10.87	33.83	3.60	210	150	11.70	34.33	1.06	26.14	188	0.38
98	11.64	34.22	1.71	195	200	11.38	34.43	0.85	26.28	175	0.48
111	11.82	34.29	1.68	193	250	11.02	34.51	0.80	26.41	163	0.56
132	11.81	34.33	1.17	190	300	10.55	34.44	0.78	26.45	159	0.64
158	11.64	34.33	1.03	187	400	8.32	34.39	0.52	26.77	128	0.79
192	11.42	34.41	0.88	177	500	7.18	34.38	0.43	26.94	113	0.92
240	11.12	34.51	0.83	164							
314	10.38	34.43	0.75	157							
407	8.18	34.39	0.52	126							
540	6.81	34.38	0.42	109							

a) All oxygen values appear to be 20 per cent high.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
117.50	BLACK DOUGLAS; July 19, 1958; 1148, 1202 GCT; 28°08'N, 116°15'W; sounding, 2100 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 16°, 16°.										
10	18.24	33.58	6.97a)	378	0	18.2	(33.58)	(6.97)	(24.14)	(378)	(0.00)
19	18.27	33.59	6.78	378	10	18.24	33.58	6.97	24.14	378	0.04
					20	18.26	33.59	6.78	24.15	377	0.08
37	16.06	33.53	7.40	332	30	16.88	33.55	7.17	24.45	349	0.11
50	14.75	33.49	7.27	308	50	14.75	33.49	7.27	24.88	308	0.18
59	13.79	33.46	6.86	291	75	12.01	33.59	5.24	25.51	248	0.25
68	12.95	33.55	5.73	268	100	10.02	33.61	4.90	25.88	213	0.31
77	11.70	33.60	5.07	242	150	10.10	34.15	2.47	26.28	174	0.41
94	10.70	33.68	4.37	218	200	9.55	34.31	1.46	26.51	154	0.49
106	9.66	33.58	5.16	209	250	8.60	34.26	1.60	26.62	143	0.56
119	9.30	33.68	4.36	196	300	8.27	34.33	1.05	26.74	132	0.64
139	9.98	34.04	2.87	180	400	7.60	34.40	0.45	26.88	118	0.77
164	10.24	34.31	1.80	164	500	6.50	34.39	0.39	27.03	104	0.88
197	9.74	34.33	1.40	154							
243	8.66	34.25	1.66	144							
315	8.20	34.34	0.92	131							
407	7.54	34.40	0.43	117							
537	6.00	34.38	0.39	99							
117.60	BLACK DOUGLAS; July 19, 1958; 1737 GCT; 27°47.5'N, 116°54'W; sounding, 2200 fm; wind, 360°, force 4; weather, partly cloudy; sea, moderate; wire angle, 19°.										
4	18.80	33.60	6.66a)	390	0	18.8	(33.60)	(6.66)	(24.02)	(390)	(0.00)
12	18.78	33.58	6.75	390	10	18.80	33.59	6.72	24.02	390	0.04
30	17.42	33.54	7.24	362	20	18.55	33.57	6.87	24.06	386	0.08
43	16.13	33.49	7.20	336	30	17.42	33.54	7.24	24.32	362	0.12
52	15.88	33.52	7.58	329	50	15.97	33.50	7.46	24.63	332	0.18
60	15.19	33.51	7.35	315	75	14.27	33.51	7.13	25.00	296	0.26
69	14.58	33.52	7.20	302	100	11.62	33.48	5.99	25.50	249	0.33
86	12.90	33.48	6.85	272	150	11.01	34.05	2.43	26.06	196	0.44
100	11.62	33.48	5.99	249	200	10.98	34.47	0.93	26.38	165	0.54
112	10.36	33.48	5.78	228	250	10.02	34.46	0.80	26.55	150	0.62
132	10.72	33.89	3.49	203	300	9.45	34.42	0.59	26.62	143	0.69
156	11.06	34.17	2.15	195	400	8.22	34.46	0.50	26.84	122	0.83
188	11.06	34.43	1.13	169	500	7.01	34.41	0.32	26.97	110	0.95
233	10.24	34.47	0.88	152							
303	9.40	34.42	0.58	143							
391	8.35	34.46	0.51	124							
517	6.90	34.40	0.30	109							
117.70	BLACK DOUGLAS; July 19, 1958; 2344 GCT; 27°27.5'N, 117°32.5'W; sounding, 2000 fm; wind, 030°, force 3; weather, partly cloudy; sea, moderate; wire angle, 12°.										
8	20.88	33.75	6.29a)	430	0	20.9	(33.75)	(6.29)	(23.60)	(430)	(0.00)
17	20.70	33.76	6.41	425	10	20.87	33.75	6.30	23.60	430	0.04
35	19.66	33.67	6.51	405	20	20.64	33.76	6.43	23.67	424	0.08
48	17.58	33.52	6.81	367	30	19.77	33.68	6.50	23.84	407	0.13
57	16.91	33.49	6.94	354	50	17.39	33.51	6.84	24.30	363	0.20
66	16.56	33.51	6.97	344	75	16.20	33.46	7.02	24.54	340	0.29
75	16.20	33.46	7.02	340	100	15.40	33.49	6.92	24.75	321	0.38
94	15.61	33.45	6.92	328	150	11.39	33.58	5.24	25.62	238	0.52
107	15.11	33.58	6.92	309	200	9.68	33.90	3.82	26.17	186	0.63
120	14.38	33.61	6.63	291	250	8.77	34.08	2.76	26.46	158	0.72
143	11.84	33.57	5.41	246	300	8.27	34.23	1.70	26.65	140	0.79
169	10.58	33.69	4.88	215	400	7.38	34.25	0.84	26.80	125	0.93
203	9.62	33.92	3.74	183	500	6.45	34.30	0.48	26.96	110	1.06
252	8.76	34.08	2.74	158							
327	8.06	34.27	1.32	134							
421	7.15	34.25	0.75	123							
553	6.08	34.33	0.36	103							

a) All oxygen values appear to be 20 per cent high.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{-5}T_3$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{-5}T_3$ 10^{-5} cm/g	ΔD dyn. m

BLACK DOUGLAS; July 20, 1958; 0608 GCT; 27°07.5'N, 118°11'W; sounding, 2100 fm; wind, 020°, force 4; weather, partly cloudy; sea, moderate; wire angle, 01°. 117.80

8	21.06	33.95	6.05a)	420	0	21.1	(33.95)	(6.05)	(23.68)	(422)	(0.00)
17	21.10	33.99	6.22	419	10	21.07	33.96	6.09	23.70	420	0.04
36	20.89	34.21	6.35	398	20	21.10	34.00	6.22	23.72	418	0.08
50	19.94	34.11	6.39	380	30	21.02	34.10	6.30	23.82	409	0.12
59	19.18	34.04	6.53	367	50	19.94	34.11	6.39	24.12	380	0.20
68	18.69	33.96	6.69	361	75	18.43	33.91	6.69	24.34	359	0.30
77	18.36	33.89	6.69	358	100	17.30	33.82	6.76	24.56	339	0.39
96	17.51	33.82	6.81	343	150	12.17	33.59	5.61	25.48	250	0.53
110	16.78	33.82	6.60	328	200	9.80	33.78	4.23	26.06	196	0.65
123	14.46	33.65	6.22	290	250	9.15	34.10	2.72	26.42	163	0.74
145	12.48	33.59	5.69	257	300	8.34	34.19	2.09	26.61	144	0.82
171	10.71	33.60	5.18	224	400	7.15	34.28	1.08	26.85	121	0.96
206	9.63	33.84	3.93	190	500	6.45	34.34	0.53	27.00	107	1.08
255	9.08	34.12	2.63	160							
330	7.88	34.22	1.72	135							
426	6.96	34.29	0.87	118							
560	6.10	34.37	0.38	100							

BLACK DOUGLAS; July 18, 1958; 1956 GCT; 28°18.5'N, 115°24'W; sounding, 140 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 07°. 118.39

4	20.05	33.69	7.16a)	414	0	20.1	(33.69)	(7.16)	(23.77)	(414)	(0.00)
13	19.63	33.75	7.08	399	10	19.99	33.70	7.13	23.80	412	0.04
32	14.29	33.58	6.94	292	20	18.30	33.69	7.00	24.22	371	0.08
50	13.40	33.60	5.98	272	30	14.50	33.58	6.94	25.01	296	0.11
73	11.48	33.69	4.58	231	50	13.40	33.60	5.98	25.25	273	0.17
96	11.66	34.00	2.66	211	75	11.50	33.71	4.50	25.70	230	0.23
119	11.60	34.15	1.80	199	100	11.65	34.02	2.56	25.91	210	0.29
156	11.39	34.32	1.36	183	150	11.43	34.31	1.41	26.18	184	0.39
192	10.88	34.25	0.82	180							

BLACK DOUGLAS; July 18, 1958; 0058 GCT; 28°19'N, 114°53'W; sounding, 60 fm; wind, 340°, force 5; weather, partly cloudy; sea, rough; wire angle, 10°. 119.33

0	19.78	33.70	6.50a)	406	0	19.78	33.70	6.50	23.85	406	0.00
9	19.80	33.69	6.48	408	10	19.80	33.69	6.48	23.84	407	0.04
28	19.53	33.66	6.28	403	20	19.74	33.68	6.43	23.85	406	0.08
45	17.65	33.64	6.26	360	30	19.40	33.66	6.27	23.91	400	0.12
68	16.07	33.62	6.16	326	50	17.26	33.64	6.25	24.42	351	0.20
91	11.90	33.60	4.55	245	75	15.40	33.62	5.97	24.84	312	0.28

BLACK DOUGLAS; July 18, 1958; 0710 GCT; 28°23'N, 114°14.5'W; sounding, 30 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 01°. 120.25

0	18.96	33.66	6.73a)	389	0	18.96	33.66	6.73	24.03	389	0.00
9	18.94	33.67	6.87	388	10	18.90	33.67	6.88	24.05	387	0.04
28	14.50	33.57	7.23	297	20	16.69	33.62	7.07	24.54	340	0.08

BLACK DOUGLAS; July 18, 1958; 0320 GCT; 28°13'N, 114°34'W; sounding, 50 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 08°. 120.30

0	19.08	33.64	6.63a)	394	0	19.08	33.64	6.63	23.92	394	0.00
9	19.06	33.68	6.73	390	10	19.05	33.68	6.74	24.02	390	0.04
28	17.44	33.60	-	358	20	18.84	33.67	6.78	24.06	386	0.08
46	15.24	33.55	7.02	314	30	17.15	33.59	6.93	24.42	352	0.11
69	12.73	33.62	5.16	258	50	14.78	33.55	6.83	24.92	304	0.18

a) All oxygen values appear to be 20 per cent high.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

120.35 BLACK DOUGLAS; July 17, 1958; 2210 GCT; 28°03'N, 114°54'W; sounding, 47 fm; wind, 350°, force 4; weather, partly cloudy; sea, moderate; wire angle, 04°.

6	19.14	33.66	7.02a)	394	0	19.1	(33.66)	(7.02)	(23.98)	(394)	(0.00)
15	18.84	33.63	7.06	388	10	19.03	33.65	7.04	24.00	392	0.04
34	16.34	33.62	7.39	332	20	18.72	33.63	7.08	24.06	386	0.08
52	13.34	33.58	5.50	273	30	18.00	33.62	7.19	24.23	370	0.12
75	11.08	33.71	3.09	223	50	13.46	33.58	5.62	25.22	276	0.18
					75	11.08	33.71	3.09	25.78	223	0.24

120.45 BLACK DOUGLAS; July 17, 1958; 1615 GCT; 27°44'N, 115°33.5'W; sounding, 1050 fm; wind, 360°, force 4; weather, cloudy; sea, rough; wire angle, 17°.

8	20.86	33.78	6.11a)	428	0	20.9	(33.78)	(6.11)	(23.62)	(428)	(0.00)
17	20.89	33.79	6.35	428	10	20.86	33.78	6.16	23.62	428	0.04
35	18.30	33.56	7.03	381	20	20.85	33.79	6.38	23.63	427	0.08
48	15.32	33.51	7.17	318	30	19.71	33.68	6.71	23.84	407	0.13
56	14.22	33.46	7.19	299	50	15.12	33.50	7.19	24.84	312	0.20
65	13.24	33.51	6.86	276	75	12.21	33.51	5.95	25.42	257	0.27
74	12.25	33.51	6.01	258	100	11.25	33.68	4.37	25.72	228	0.33
92	11.42	33.70	4.70	236	150	9.97	34.02	2.75	26.21	182	0.44
105	11.14	33.75	4.21	220	200	9.94	34.29	1.64	26.44	160	0.52
118	10.50	33.84	3.84	204	250	9.45	34.40	1.14	26.60	145	0.60
140	10.09	33.97	3.21	187	300	8.93	34.40	0.81	26.68	137	0.67
166	10.44	34.24	1.77	173	400	7.97	34.42	0.46	26.84	122	0.81
201	9.94	34.30	1.64	160	500	6.91	34.42	0.40	27.00	107	0.93
249	9.46	34.40	1.15	145							
324	8.78	34.40	0.74	135							
418	7.72	34.42	0.44	118							
551	6.48	34.42	0.40	102							

120.50 BLACK DOUGLAS; July 17, 1958; 1311 GCT; 27°33.5'N, 115°53'W; sounding, 2100 fm; wind, 340°, force 4; weather, cloudy; sea, moderate; wire angle, 20°.

6	20.44	33.75		420	0	20.5	(33.75)		(23.71)	(420)	(0.00)
15	20.48	33.78		418	10	20.46	33.77		23.72	419	0.04
32	18.43	33.62		380	20	20.47	33.78		23.73	417	0.08
45	17.30	33.61		354	30	18.66	33.64		24.08	384	0.12
54	15.96	33.57		327	50	16.36	33.59		24.61	334	0.20
63	14.84	33.53		307	75	13.34	33.66		25.30	268	0.27
71	13.82	33.64		278	100	11.82	33.89		25.78	223	0.33
88	12.02	33.69		241	150	10.46	34.20		26.27	176	0.44
101	11.82	33.89		222	200	9.19	34.23		26.50	154	0.52
114	11.13	33.89		210	250	9.50	34.44		26.65	140	0.59
136	10.96	34.14		189	300	8.79	34.41		26.71	134	0.66
161	10.90	34.33		174	400	7.72	34.36		26.83	123	0.80
195	9.33	34.22		156	500	6.85	34.38		26.98	109	0.92
243	9.58	34.44		144							
316	8.53	34.40		131							
408	7.61	34.36		121							
536	6.51	34.40		103							

a) All oxygen values appear to be 20 per cent high.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{3}^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{3}^{-5} 10 cm/g	ΔD dyn. m

120.60

BLACK DOUGLAS; July 17, 1958; 0635 GCT; 27°13'N, 116°31.5'W; sounding, 2000 fm; wind, 340°, force 5; weather, partly cloudy; sea, rough; wire angle, 05°.

8	19.68	33.60	6.70a)	411	0	19.7	(33.60)	(6.70)	(23.80)	(411)	(0.00)
17	19.69	33.63	6.42	409	10	19.68	33.60	6.65	23.80	411	0.04
36	18.53	33.58	6.82	384	20	19.66	33.63	6.43	23.83	408	0.08
50	17.50	33.55	7.04	363	30	19.01	33.61	6.66	23.98	394	0.12
59	16.30	33.51	7.04	339	50	17.50	33.55	7.04	24.30	363	0.20
68	15.84	33.48	7.13	331	75	15.54	33.48	7.24	24.70	325	0.28
77	15.44	33.48	7.25	323	100	12.87	33.53	6.23	25.30	268	0.36
95	13.56	33.52	6.54	281	150	10.01	33.80	4.15	26.04	198	0.48
109	12.08	33.53	5.84	254	200	10.05	34.18	2.43	26.32	171	0.57
123	11.34	33.66	4.93	231	250	9.28	34.28	1.58	26.52	152	0.65
145	10.23	33.77	4.28	204	300	8.88	34.37	1.17	26.67	138	0.73
171	10.70	34.11	2.56	187	400	7.47	34.37	0.81	26.87	119	0.86
207	9.63	34.13	2.44	168	500	6.55	34.38	0.48	27.02	105	0.98
255	9.24	34.29	1.48	150							
330	8.53	34.61r	1.00								
425	7.08	34.35	0.72	115							
558	6.32	34.40	0.35	101							

120.70

BLACK DOUGLAS; July 16, 1958; 2325 GCT; 26°52.5'N, 117°12'W; sounding, 2000 fm; wind, 350°, force 4; weather, cloudy; sea, rough; wire angle, 16°.

12	21.40	33.78	6.33a)	442	0	21.4	(33.78)	(6.33)	(23.48)	(442)	(0.00)
21	21.38	33.80	6.29	440	10	21.4	(33.78)	(6.33)	(23.48)	(442)	(0.04)
39	20.39	33.77	6.44	416	20	21.39	33.80	6.29	23.50	440	0.09
52	19.21	33.68	6.77	394	30	20.66	33.78	6.37	23.68	422	0.13
60	19.38	34.07	6.90	372	50	19.26	33.68	6.73	23.97	395	0.21
69	18.96	34.06	6.82	360	75	18.32	33.92	6.90	24.40	354	0.31
77	18.12	33.89	6.92	352	100	16.67	33.87	6.74	24.75	321	0.39
94	17.20	33.89	6.76	331	150	11.12	33.62	5.38	25.70	230	0.53
107	15.93	33.84	6.70	307	200	9.58	33.91	3.85	26.19	184	0.64
120	14.49	33.72	6.35	286	250	8.68	34.11	2.85	26.49	155	0.73
141	11.81	33.58	5.74	245	300	8.27	34.24	2.18	26.66	139	0.80
167	10.30	33.71	4.66	210	400	7.47	34.36	0.71	26.87	119	0.94
202	9.54	33.91	3.81	183	500	6.58	34.38	0.36	27.01	106	1.06
250	8.68	34.11	2.85	155							
325	8.04	34.30	1.40	132							
416	7.37	34.36	0.63	118							
550	6.08	34.38	0.27	100							

120.80

BLACK DOUGLAS; July 16, 1958; 1642 GCT; 26°32.5'N, 117°48.5'W; sounding, 2000+ fm; wind, 360°, force 4; weather, cloudy; sea, rough; wire angle, 15°.

8	21.48	33.82	6.07a)	441	0	21.5	(33.82)	(6.07)	(23.49)	(441)	(0.00)
17	21.50	33.80	6.42	443	10	21.49	33.80	6.10	23.48	442	0.04
35	20.42	33.81	6.60	414	20	21.37	33.80	6.46	23.50	439	0.09
49	18.20	33.70	7.34	368	30	20.58	33.81	6.56	23.72	418	0.13
57	17.54	33.64	7.06	357	50	18.07	33.69	7.31	24.27	366	0.21
66	17.32	33.66	7.08	350	75	17.19	33.72	6.94	24.50	344	0.30
75	17.19	33.72	6.94	344	100	16.07	33.65	6.93	24.72	324	0.38
93	16.50	33.71	6.86	329	150	11.20	33.56	5.62	25.64	236	0.52
105	15.49	33.58	7.02	317	200	9.48	33.93	3.66	26.22	181	0.63
117	13.53	33.57	6.64	277	250	9.35	34.20	2.22	26.46	158	0.71
139	11.82	33.54	5.93	248	300	8.79	34.35	1.22	26.66	139	0.79
165	10.51	33.60	5.15	221	400	7.88	34.41	0.50	26.85	121	0.93
200	9.48	33.93	3.66	181	500	6.89	34.42	0.35	27.00	107	1.05
249	9.36	34.20	2.24	158							
323	8.58	34.38	0.90	133							
416	7.72	34.41	0.47	119							
548	6.27	34.42	0.30	99							

a) All oxygen values appear to be 20 per cent high.

SIO

CCOFI 5807

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
120.90	BLACK DOUGLAS; July 16, 1958; 1008 GCT; 26°13'N, 118°27.5'W; sounding, 2100 fm; wind, 330°, force 3; weather, cloudy; sea, moderate; wire angle, 10°.										
8	21.49	33.76	6.33a)	445	0	21.5	(33.77)	(6.29)	(23.44)	(445)	(0.00)
17	21.55	33.75	6.35	446	10	21.49	33.76	6.33	23.44	446	0.04
35	19.67	33.80	6.67	396	20	21.44	33.75	6.37	23.45	444	0.09
49	19.71	34.05	6.56	379	30	19.95	33.78	6.65	23.87	404	0.13
57	19.16	34.04	6.59	366	50	19.68	34.05	6.55	24.14	378	0.21
66	18.61	33.97	6.77	359	75	18.00	33.94	6.76	24.48	346	0.30
75	18.00	33.94	6.76	346	100	17.27	33.93	6.50	24.65	330	0.39
93	17.52	33.93	6.56	335	150	11.82	33.62	5.50	25.58	242	0.53
106	16.93	33.93	6.41	322	200	9.59	33.86	2.92	26.15	187	0.64
120	14.90	33.79	5.96	289	250	8.92	34.15	2.59	26.48	156	0.73
141	12.42	33.64	5.75	252	300	8.65	34.32	1.80	26.67	138	0.80
168	10.78	33.64	4.50	223	400	7.76	34.34	0.70	26.82	125	0.94
203	9.50	33.89	2.83	184	500	6.71	34.35	0.52	26.97	110	1.06
252	8.87	34.16	2.58	154							
328	8.52	34.34	1.10	135							
422	7.49	34.34	0.63	121							
553	6.20	34.35	0.47	104							
123.37	BLACK DOUGLAS; July 15, 1958; 0224 GCT; 27°24'N, 114°39.5'W; sounding, 40 fm; wind, 310°, force 4; weather, clear; sea, slight; wire angle, 11°.										
4	18.20	33.80	8.24a)	361	0	18.2	(33.80)	(8.24)	(24.32)	(361)	(0.00)
13	17.68	33.78	8.35	350	10	18.18	33.80	8.25	24.33	360	0.04
31	14.96	34.11	2.97	266	20	15.79	34.01	4.63	25.06	291	0.07
49	14.30	34.13	2.16	252	30	15.02	34.10	3.12	25.29	269	0.10
58	13.72	34.16	1.65	238	50	14.25	34.13	2.09	25.48	251	0.15
123.42	BLACK DOUGLAS; July 15, 1958; 0618 GCT; 27°14'N, 114°59.5'W; sounding, 640 fm; wind, 300°, force 4; weather, missing; sea, moderate; wire angle, 33°.										
4	20.76	33.77	6.66a)	425	0	20.7	(33.77)	(6.66)	(23.66)	(425)	(0.00)
12	20.77	33.78	6.72	425	10	20.77	33.78	6.69	23.65	426	0.04
33	18.68	33.65	6.99	384	20	20.75	33.78	6.76	23.66	425	0.08
43	16.82	33.55	7.23	348	30	19.27	33.69	6.90	23.97	395	0.12
55	15.35	33.55	7.27	316	50	15.88	33.55	7.28	24.68	327	0.20
64	14.74	33.66	6.31	295	75	14.47	34.04	3.33	25.37	262	0.27
72	14.70	34.05	3.36	266	100	11.77	33.90	3.63	25.80	220	0.33
89	12.51	33.90	3.46	234	150	11.77	34.35	1.32	26.15	188	0.44
105	11.46	33.91	3.70	215	200	11.58	34.54	0.89	26.34	170	0.53
118	12.56	34.36	1.13	201	250	10.75	34.56	0.63	26.50	154	0.61
140	11.81	34.27	1.40	194	300	10.03	34.58	0.52	26.64	140	0.69
174	11.68	34.50	-	175	400	8.19	34.45	0.47	26.84	122	0.82
207	11.49	34.55	0.77	168	500	7.00	34.41	0.47	26.98	109	0.94
258	10.69	34.60	0.63	151							
345	9.22	34.55	0.39	131							
425	7.79	34.42	0.49	119							
567	6.43	34.41	0.38	102							

a) All oxygen values appear to be 20 per cent high.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_{-5}	Z	T	S	O_2	σ_t	δT_{-5}	ΔD
m	°C	‰	ml/L	10^3 cm/g	m	°C	‰	ml/L	g/L	10^3 cm/g	dyn. m

123.50

BLACK DOUGLAS; July 15, 1958; 1119 GCT; 26°57.5'N, 115°30'W; sounding, 2000 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 11°.

8	21.56	33.80	6.41a)	444	0	21.6	(33.80)	(6.41)	(23.44)	(445)	(0.00)
17	20.46	33.78	6.57	418	10	21.50	33.80	6.43	23.47	442	0.04
36	19.04	33.72	6.81	387	20	20.33	33.78	6.60	23.77	414	0.09
49	15.88	33.70	7.22	316	30	19.75	33.75	6.69	23.89	402	0.13
57	15.08	33.63	6.52	305	50	15.70	33.68	7.17	24.83	313	0.20
66	13.92	33.71	5.07	275	75	12.78	33.69	4.56	25.45	254	0.27
75	12.78	33.69	4.56	254	100	11.63	33.86	3.18	25.80	221	0.33
92	11.92	33.78	3.57	232	150	10.72	34.20	2.01	26.23	180	0.43
105	11.51	33.91	3.03	215	200	9.69	34.29	1.49	26.46	158	0.52
118	11.20	33.99	2.69	204	250	9.80	34.51	0.68	26.63	142	0.60
140	10.92	34.15	2.09	187	300	8.90	34.46	0.72	26.73	132	0.67
166	10.40	34.25	1.93	171	400	7.22	34.35	0.71	26.90	117	0.80
201	9.68	34.29	1.49	158	500	6.35	34.35	0.55	27.02	105	0.91
250	9.80	34.51	0.68	142							
325	8.48	34.43	0.76	128							
419	6.99	34.34	0.70	114							
552	6.04	34.36	0.46	101							

123.60

BLACK DOUGLAS; July 15, 1958; 1715 GCT; 26°36.5'N, 116°08'W; sounding, 2000+ fm; wind, 340°, force 4; weather, cloudy; sea, moderate; wire angle, 21°.

6	21.07	33.66	6.52a)	442	0	21.1	(33.66)	(6.52)	(23.46)	(443)	(0.00)
14	20.66	33.68	6.56	430	10	20.92	33.67	6.54	23.53	437	0.04
31	19.60	33.71	6.64	401	20	20.22	33.69	6.60	23.72	419	0.09
44	17.41	33.53	7.21	362	30	19.61	33.71	6.64	23.90	402	0.13
52	17.05	33.54	7.10	354	50	17.14	33.54	7.11	24.39	355	0.20
61	16.80	33.57	7.10	346	75	16.55	33.60	7.00	24.57	338	0.29
70	16.60	33.58	7.10	340	100	14.64	33.64	6.90	25.02	295	0.37
87	16.53	33.81	6.94	322	150	10.96	33.96	3.45	26.00	202	0.50
100	14.64	33.64	6.90	295	200	10.47	34.26	1.96	26.31	172	0.59
112	12.52	33.52	6.54	262	250	10.25	34.44	1.00	26.49	155	0.67
132	10.94	33.55	5.35	232	300	9.97	34.54	0.42	26.62	143	0.75
154	10.96	34.03	2.94	197	400	8.20	34.48	0.33	26.86	120	0.89
184	10.58	34.22	2.17	176	500	6.90	34.42	0.32	27.00	107	1.01
227	10.37	34.38	1.49	161							
295	10.02	34.54	0.45	144							
381	8.45	34.49	0.35	123							
505	6.85	34.42	0.32	107							

123.70

BLACK DOUGLAS; July 15, 1958; 2244 GCT; 26°18.5'N, 116°47'W; sounding, 2100 fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 18°.

10	21.90	33.79	6.43a)	454	0	21.9	(33.79)	(6.43)	(23.35)	(454)	(0.00)
19	21.46	33.81	6.29	441	10	21.90	33.79	6.43	23.35	454	0.04
41	20.19	33.75	6.33	413	20	21.41	33.81	6.28	23.50	440	0.09
67	18.68	33.92	6.82	364	30	20.32	33.76	6.30	23.74	416	0.13
76	17.61	33.75	6.98	351	50	20.00	33.76	6.37	23.84	407	0.22
89	17.05	33.73	6.92	340	75	17.65	33.75	6.97	24.42	352	0.31
97	16.21	33.62	7.08	329	100	16.02	33.62	7.07	24.70	325	0.40
115	15.02	33.62	6.92	304	150	11.45	33.52	5.77	25.56	244	0.54
127	13.64	33.55	6.63	282	200	10.17	34.02	3.15	26.18	184	0.65
144	11.77	33.49	6.14	250	250	9.12	34.18	2.59	26.47	157	0.74
165	10.92	33.68	4.62	222	300	8.48	34.24	1.77	26.62	142	0.82
190	10.44	33.93	3.32	196	400	7.70	34.36	0.68	26.84	122	0.96
215	9.81	34.12	2.99	172	500	6.95	34.40	0.37	26.98	108	1.08
266	8.91	34.19	2.40	152							
345	8.07	34.29	1.20	132							
444	7.44	34.40	0.47	116							
577	6.12	34.38	0.28	100							

a) All oxygen values appear to be 20 per cent high.

SIO

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5807

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{3}^{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{3}^{-5} 10^{-5} cm/g	ΔD dyn. m
127.34	BLACK DOUGLAS; July 14, 1958; 2040 GCT; 26°55.5'N, 114°06'W; sounding, 40 fm; wind, 280°, force 4; weather, clear; sea, slight; wire angle, 06°.										
0	20.96	34.09	7.00a)	407	0	20.96	34.09	7.00	23.84	407	0.00
9	19.79	34.00	7.71	385	10	19.60	34.00	7.59	24.12	380	0.04
28	15.95	34.04	3.41	293	20	17.55	34.02	5.16	24.66	330	0.07
46	13.78	34.27	0.90	231	30	15.50	34.06	2.93	25.16	282	0.10
55	13.78	34.29	0.71	230	50	13.78	34.28	0.85	25.70	230	0.16
127.40	BLACK DOUGLAS; July 14, 1958; 1632 GCT; 26°36'N, 114°26'W; sounding, 1500 fm; wind, 290°, force 3; weather, partly cloudy; sea, moderate; wire angle, 07°.										
4	21.66	33.84	6.37a)	445	0	21.7	(33.84)	(6.37)	(23.43)	(446)	(0.00)
13	21.38	33.86	6.41	435	10	21.54	33.85	6.39	23.49	440	0.04
32	18.04	33.80	7.36	357	20	20.50	33.85	6.63	23.77	414	0.09
45	16.09	33.73	7.17	318	30	18.41	33.81	7.27	24.27	366	0.13
54	15.08	33.77	6.24	294	50	15.58	33.75	6.69	24.90	306	0.19
64	14.04	33.76	5.32	274	75	13.21	33.81	4.33	25.45	254	0.26
73	13.30	33.80	4.48	256	100	12.57	34.15	2.45	25.84	217	0.32
90p	12.72	33.96	3.19	234	150	11.94	34.60	0.52	26.31	172	0.42
114p	12.40	34.45	3.66u	192	200	11.05	34.63	0.45	26.50	154	0.50
149p	11.96	34.60	0.53	172	250	10.30	34.62	0.42	26.62	143	0.58
206p	10.96	34.63	0.44	153	300	9.75	34.60	0.41	26.71	134	0.65
281p	9.97	34.61	0.41	138	400	(8.75)	(34.56)	(0.42)	(26.84)	(122)	(0.78)
395p	8.80	34.56	0.42	123							
127.50	BLACK DOUGLAS; July 14, 1958; 1015 GCT; 26°19'N, 115°04'W; sounding, 1500 fm; wind, 290°, force 3; weather, clear; sea, slight; wire angle, 16°.										
0	22.08	33.86	6.35a)	454	0	22.08	33.86	6.35	23.35	454	0.00
9	21.87	33.85	6.35	449	10	21.83	33.85	6.36	23.40	449	0.04
27	20.35	33.87	6.49	408	20	21.10	33.86	6.41	23.62	428	0.09
40p	18.80b)	33.77	6.65	378	30	20.01	33.85	6.51	23.90	401	0.13
48p	17.91c)	33.78	6.99	356	50	17.77	33.78	7.03	24.42	352	0.21
56p	17.36	33.75	7.12	345	75	15.75	33.82	6.88	24.92	304	0.29
63p	16.83d)	33.80	6.94	330	100	12.22	33.84	5.83	25.66	234	0.36
78p	15.30	33.82	6.77	295	150	11.94	34.27	1.53	26.06	196	0.47
88p	13.66	33.86	6.41	259	200	11.01	34.44	0.85	26.36	168	0.56
97p	12.54	33.85	6.06	237	250	10.00	34.45	0.80	26.55	150	0.64
110p	11.63	33.64u	5.03		300	8.45	34.30	1.23	26.68	137	0.72
127p	11.84	33.96	3.18	218	400	7.55	34.36	0.64	26.86	120	0.85
150p	11.94	34.27	1.53	196							
183p	11.30	34.42	0.92	174							
240p	10.26	34.47	0.75	153							
316p	8.09	34.27	1.30	134							
434p	7.41	34.40	0.41	115							

a) All oxygen values appear to be 20 per cent high.
b) Alternate value, 18.66°C, not used in interpolation.
c) Alternate value, 17.79°C, not used in interpolation.
d) Alternate value, 16.95°C, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

BLACK DOUGLAS; July 14, 1958; 0401 GCT; 26°02'N, 115°44'W; sounding, 2000 fm; wind, 290°, force 3; weather, missing; sea, slight; wire angle, 08°. 127.60

6	22.94	33.81	6.33a)	480	0	23.0	(33.81)	(6.33)	(23.05)	(482)	(0.00)
15	20.92	33.86	6.41	423	10	22.20	33.82	6.38	23.28	460	0.05
34	20.65	33.87	6.37	416	20	20.85	33.86	6.40	23.68	422	0.09
48	19.66	33.78	6.71	397	30	20.82	33.86	6.40	23.69	421	0.13
56	18.04	33.58	6.94	373	50	19.42	33.75	6.75	23.98	394	0.21
66	17.66	33.75	7.13	352	75	17.09	33.75	7.02	24.56	339	0.31
75	17.09	33.75	7.02	339	100	14.49	33.66	6.29	25.07	290	0.39
93	15.44	33.71	6.62	306	150	10.75	33.81	4.15	25.92	209	0.51
106	13.68	33.62	6.03	277	200	9.89	34.08	2.88	26.27	176	0.61
120	12.69	33.57	5.45	262	250	9.41	34.27	1.70	26.50	154	0.70
142	11.09	33.78	4.36	218	300	8.72	34.30	1.27	26.64	141	0.77
168	10.21	33.87	3.76	197	400	7.82	34.35	0.85	26.81	125	0.91
203	9.88	34.08	2.82	176	500	6.95	34.40	0.46	26.98	109	1.04
249	9.42	34.27	1.72	154							
323	8.42	34.31	1.15	136							
416	7.72	34.36	-	122							
548	6.49	34.41	0.28	103							

BLACK DOUGLAS; July 13, 1958; 0310 GCT; 26°29'N, 113°29'W; sounding, 40 fm; wind, 090°, force 2; weather, partly cloudy; sea, slight; wire angle, 05°. 130.30

0	22.43	34.13	7.51a)	444	0	22.43	34.13	7.51	23.46	444	0.00
9	20.03	34.11	7.00	383	10	18.98	34.11	6.31	24.36	357	0.04
28	14.81	34.10	2.71	264	20	15.55	34.10	3.40	25.18	280	0.07
46	13.84	34.33	0.61	228	30	14.65	34.11	2.47	25.38	261	0.10
55	13.82	34.32	0.61	228	50	13.81	34.33	0.61	25.72	228	0.15

BLACK DOUGLAS; July 13, 1958; 0631 GCT; 26°19'N, 113°48.5'W; sounding, 200 fm; wind, 090°, force 2; weather, clear; sea, slight; wire angle, 14°. 130.35

8	21.01	33.84	7.32a)	427	0	21.0	(33.84)	(7.32)	(23.63)	(427)	(0.00)
17	17.78	33.75	7.06	355	10	20.88	33.84	7.32	23.66	424	0.04
35	16.25	33.82	6.68	316	20	17.52	33.76	7.01	24.46	348	0.08
52	14.14	33.84	4.64	270	30	16.69	33.80	6.83	24.69	326	0.11
75	13.06	34.11	2.24	230	50	14.36	33.84	4.95	25.23	275	0.18
97	12.96	34.44	0.84	203	75	13.06	34.11	2.24	25.70	230	0.24
118	12.86	34.52	0.68	196	100	12.98	34.46	0.80	26.00	202	0.29
153	12.62	34.58	0.41	186	150	12.64	34.57	0.44	26.14	188	0.39
189	12.51	34.62	0.41	181	200	12.42	34.62	0.41	26.23	180	0.48
232	12.06	34.63	0.41	172	250	11.72	34.64	0.40	26.38	166	0.57
278	11.10	34.65	0.35	154							

BLACK DOUGLAS; July 13, 1958; 0950 GCT; 26°09'N, 114°07.5'W; sounding, 1200 fm; wind, 300°, force 3; weather, clear; sea, moderate; wire angle, 05°. 130.40

6	22.94	33.89	6.39a)	474	0	23.0	(33.89)	(6.39)	(23.12)	(476)	(0.00)
15	22.06	33.89	6.64	451	10	22.75	33.89	6.45	23.19	469	0.05
34	17.84	33.69	7.33	360	20	21.18	33.86	6.80	23.60	430	0.09
43	16.54	33.64	7.33	335	30	18.88	33.74	7.20	24.11	382	0.13
52	15.60	33.68	7.37	312	50	15.79	33.68	7.36	24.80	316	0.20
61	14.27	33.57	6.72	292	75	13.18	33.77	5.04	25.43	256	0.27
70	13.62	33.73	5.54	268	100	11.86	33.95	3.31	25.82	219	0.34
90p	12.22	33.84	4.08	234	150	11.26	34.37	1.55	26.25	178	0.43
110p	11.66	34.06	2.52	207	200	10.45	34.50	0.90	26.50	154	0.52
135p	11.39	34.27	1.65	186	250	9.72	34.55	0.67	26.67	138	0.59
170p	10.90	34.42	1.08	167	300	9.06	34.49	0.53	26.72	133	0.66
228p	10.02	34.59	0.79	141	400	8.07	34.47	0.45	26.86	120	0.80
303p	9.05	34.49	0.53	132							
405p	8.04	34.47	0.45	119							

a) All oxygen values appear to be 20 per cent high.

SIO

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5807

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
130.50	BLACK DOUGLAS; July 13, 1958; 1605 GCT; 25°47.5'N, 114°44'W; sounding, 2000+ fm; wind, 320°, force 2; weather, overcast; sea, slight; wire angle, 17°.										
6	22.48	33.73	6.32a)	474	0	22.5	(33.73)	(6.32)	(23.13)	(474)	(0.00)
15	20.24	33.72	6.49	416	10	21.50	33.73	6.40	23.41	448	0.05
33	18.83	33.66	6.93	386	20	19.85	33.71	6.60	23.84	407	0.09
41	17.78	33.61	6.98	365	30	19.15	33.67	6.83	24.00	392	0.13
51	17.00	33.66	6.99	344	50	17.06	33.66	6.99	24.50	345	0.20
60	16.36	33.57	7.02	336	75	15.23	33.66	6.81	24.91	305	0.28
69	15.88	33.62	6.91	322	100	12.38	33.69	4.77	25.51	248	0.36
82	14.30	33.68	6.69	284	150	11.72	34.30	1.57	26.11	191	0.46
94	12.88	33.59b)	4.92	256	200	11.00	34.45	0.93	26.37	167	0.56
105	12.13	33.69	4.67	242	250	9.65	34.39	0.79	26.55	150	0.64
125	12.22	34.14	2.34	212	300	8.63	34.35	1.07	26.68	137	0.71
149	11.76	34.29	1.63	192	400	7.82	34.41	0.48	26.86	120	0.84
178	11.30	34 45	1.07	172	500	(6.80)	(34.42)	(0.22)	(27.01)	(106)	(0.96)
219	10.16	34.38	0.71	158							
286	8.78	34.34	1.10c)	139							
371	8.09	34.40	0.57	125							
486	6.96	34.42	0.26	108							
130.60	BLACK DOUGLAS; July 13, 1958; 2217 GCT; 25°23'N, 115°25'W; sounding, 2100 fm; wind, 320°, force 2; weather, overcast; sea, slight; wire angle, 08°.										
8	23.60	34.02	6.15a)	484	0	23.7	(34.02)	(6.16)	(23.01)	(486)	(0.00)
17	21.49	34.11	6.34	420	10	23.40	34.03	6.18	23.10	478	0.05
36	21.17	34.12	6.25	411	20	21.45	34.11	6.32	23.72	419	0.09
63	19.10	34.07	6.80	363	30	21.29	34.12	6.26	23.76	414	0.13
72	18.66	34.10	6.52	350	50	20.17	34.09	6.51	24.05	387	0.21
81	17.77	34.03	6.68	334	75	18.42	34.08	6.55	24.49	345	0.31
94	16.52	33.96	6.19	311	100	15.62	33.89	5.89	25.00	297	0.39
108	14.30	33.78	5.50	277	150	11.67	34.03	2.80	25.92	209	0.52
120	12.98	33.78	4.57	252	200	11.05	34.41	1.05	26.32	171	0.61
137	12.07	33.88	3.60	228	250	10.42	34.51	0.63	26.52	153	0.70
154	11.56	34.10	2.49	202	300	9.74	34.50	0.42	26.60	142	0.77
180	11.24	34.33	1.52	180	400	8.66	34.46	0.45	26.77	128	0.91
202	11.03	34.42	1.03	170	500	7.50	34.42	0.38	26.92	115	1.04
248	10.46	34.51	0.65	154							
322	9.48	34.49	0.39	139							
419	8.42	34.45	0.46	126							
546	6.94	34.41	0.30	108							
133.25	BLACK DOUGLAS; July 12, 1958; 1446 GCT; 26°04.5'N, 112°48'W; sounding, 45 fm; wind, calm; weather, partly cloudy; sea, slight; wire angle, 01°.										
2	23.16	33.98	6.35a)	474	0	23.16	(33.98)	(6.35)	(23.10)	(478)	(0.00)
11	20.28	33.98	6.92	398	10	20.60	33.98	6.89	23.85	406	0.04
30	14.68	34.00	4.46	270	20	16.50	33.99	5.37	24.88	308	0.08
48	14.10	34.14	2.69	247	30	14.68	34.00	4.46	25.28	270	0.11
71	13.74	34.41	0.94	220	50	14.06	34.15	2.31	25.54	246	0.16
					75	(13.70)	(34.44)	(0.83)	(25.83)	(218)	(0.22)

a) All oxygen values appear to be 20 per cent high.

b) Salinity bottle number was not recorded on the data sheet. Since standard handling and titrating procedures were used, this salinity value is assumed to be listed correctly.

c) Alternate value, 1.68 ml/L, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

133.30

BLACK DOUGLAS; July 12, 1958; 1139 GCT; 25°54.5'N, 113°07.5'W; sounding, 105 fm; wind, 090°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.

4	20.68	33.87	6.77a)	417	0	22.0	(33.87)	(6.77)	(23.38)	(451)	(0.00)
13	18.84	33.89	6.92	370	10	19.50	33.89	6.89	24.06	386	0.04
32	15.41	33.78	6.11	300	20	17.29	33.84	6.63	24.58	337	0.08
50	14.45	33.77	5.33	281	30	15.55	33.78	6.17	24.94	303	0.11
73	13.68	34.02	3.16	248	50	14.45	33.77	5.33	25.16	281	0.17
96	13.21	34.15	2.22	229	75	13.63	34.03	3.05	25.53	246	0.23
118	12.93	34.49	1.16	199	100	13.26	34.31	1.82	25.82	219	0.29
145	12.61	34.55	0.55	188	150	(12.57)	(34.56)	(0.50)	(26.16)	(187)	(0.40)

133.40

BLACK DOUGLAS; July 12, 1958; 0435 GCT; 25°34.5'N, 113°45.5'W; sounding, 1150 fm; wind, 090°, force 2; weather, missing; sea, moderate; wire angle, 02°.

117p	11.74	34.17	2.36a)	200
138p	11.40	34.33	1.97	183
164p	10.98	34.36	1.26	173
202p	10.40	34.43	1.12	158
264p	9.88	34.51	0.39	144
346p	8.64	34.43	0.28	130
462p	7.60	34.42	0.30	116

133.50

BLACK DOUGLAS; July 11, 1958; 2101 GCT; 25°08'N, 114°22'W; sounding, 2000 fm; wind, 090°, force 2; weather, fog; sea, moderate; wire angle, 07°.

6	21.57	33.82	5.62a)	443	0	23.5	(33.82)	(5.62)	(22.91)	(496)	(0.00)
14	19.82	33.68	5.76	408	10	20.46	33.73	5.72	23.69	421	0.04
33	18.24	33.65	5.73	373	20	19.20	33.66	5.78	23.98	394	0.09
42	17.59	33.73	6.22	352	30	18.45	33.65	5.73	24.15	378	0.12
51	16.98	33.68	6.02	342	50	17.03	33.68	6.03	24.52	342	0.20
60	16.22	33.62	6.17	330	75	14.75	33.56	5.82	24.94	303	0.28
68	15.40	33.57	6.10	316	100	11.95	33.66	4.49	25.58	241	0.35
80	14.14	33.56	-	290	150	10.60	33.93	2.80	26.04	198	0.46
91	12.58	33.59	4.89	258	200	10.32	34.28	1.40	26.36	168	0.55
105	11.72	33.69	4.28	235	250	9.86	34.38	1.00	26.51	153	0.64
126	11.24	33.73	3.66	224	300	9.38	34.44	0.52	26.64	141	0.71
150	10.60	33.93	2.80	198	400	7.82	34.37	0.43	26.83	124	0.85
180	10.42	34.20	1.56	176	500	(6.80)	(34.36)	(0.22)	(26.97)	(110)	(0.97)
223	10.06	34.34	1.20	160							
293	9.46	34.44	0.52	142							
379	8.06	34.37	0.48	127							
496	6.86	34.36	0.22	111							

133.60

BLACK DOUGLAS; July 11, 1958; 1452 GCT; 24°54.5'N, 115°01.5'W; sounding, 2100 fm; wind, 140°, force 1; weather, fog; sea, moderate; wire angle, 05°.

6	22.42	33.89	5.45a)	461	0	22.5	(33.89)	(5.45)	(23.26)	(463)	(0.00)
15	21.54	33.86	5.58	439	10	22.00	33.88	5.53	23.38	451	0.04
33	20.79	33.92	5.62	416	20	21.30	33.88	5.60	23.58	432	0.09
42	19.67	33.86	5.76	392	30	20.94	33.91	5.62	23.70	420	0.13
51	19.50	33.89	5.76	386	50	19.51	33.89	5.76	24.06	386	0.21
60	18.91	33.86	5.85	374	75	17.25	33.69	6.15	24.47	348	0.30
70	17.74	33.70	6.11	358	100	15.05	33.71	5.76	24.98	298	0.39
83	16.59	33.68	6.13	333	150	11.80	34.08	2.35	25.93	208	0.52
96	15.66	33.75	5.91	308	200	11.05	34.37	1.14	26.29	174	0.61
109	13.50	33.58	5.34	276	250	10.42	34.48	0.57	26.50	154	0.70
131	12.50	33.81	3.59	240	300	9.58	34.48	0.47	26.64	141	0.77
158	11.56	34.16	2.03	198	400	8.18	34.47	0.45	26.85	121	0.91
189	11.18	34.32	1.33	179	500	7.19	34.45	0.28	26.98	109	1.03
233	10.68	34.48	0.64	159							
304	9.52	34.48	0.47	140							
394	8.25	34.47	0.44	122							
513	7.04	34.44	0.24	108							

a) All oxygen values appear to be 20 per cent high.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_{-5}^{3}	Z	T	S	O_2	σ_t	δT_{-5}^{3}	ΔD
m	°C	‰	ml/L	10^{-5} cm^3/g	m	°C	‰	ml/L	g/L	10^{-5} cm^3/g	dyn. m

137.23 BLACK DOUGLAS; July 10, 1958; 1114 GCT; 25°33'N, 112°18.5'W; sounding, 42 fm; wind, direction missing, force 1; weather, clear; sea, slight; wire angle, 00°.

6	23.38	34.13	5.43a)	469	0	23.5	(34.13)	(5.43)	(23.16)	(472)	(0.00)
15	20.88	34.12	5.82	404	10	22.60	34.13	5.59	23.40	448	0.05
34	15.66	34.11	3.20	282	20	19.16	34.12	5.07	24.32	361	0.09
52	15.12	34.29	-	256	30	15.84	34.11	3.43	25.11	286	0.12
61	14.74	34.36	-	244	50	15.25	34.29		25.39	260	0.17

137.30 BLACK DOUGLAS; July 10, 1958; 1455 GCT; 25°20'N, 112°45.5'W; sounding, 170 fm; wind, direction missing, force 1; weather, partly cloudy; sea, slight; wire angle, 02°.

6	21.81	33.97	5.49a)	438	0	(22.3)	(33.97)	(5.48)	(23.37)	(452)	(0.00)
15	20.72	33.93	5.62	413	10	21.40	33.95	5.55	23.61	429	0.04
34	16.08	33.84	5.38	310	20	19.17	33.90	5.62	24.26	377	0.08
52	14.71	34.04	3.59	267	30	16.51	33.84	5.48	24.76	319	0.12
75	13.59	34.22	1.99	231	50	14.82	34.02	3.73	25.28	270	0.18
98	13.56	34.38	1.01	218	75	13.59	34.22	1.99	25.69	231	0.24
119	13.26	34.56	0.85	200	100	13.57	34.39	1.00	25.83	218	0.30
155	11.98	34.60	0.54	173	150	12.14	34.59	0.61	26.27	176	0.40
191	11.75	34.63	0.32	166	200	11.62	34.62	0.29	26.35	168	0.48
236	11.03	34.60	0.13	156							

137.35 BLACK DOUGLAS; July 10, 1958; 1804 GCT; 25°10'N, 113°04.5'W; sounding, 625 fm; wind, 340°, force 1; weather, partly cloudy; sea, rough; wire angle, 05°.

6	22.46	33.94	5.71a)	458	0	22.9	(33.94)	(5.71)	(23.18)	(470)	(0.00)
15	21.94	33.88	5.55	448	10	22.24	33.91	5.65	23.34	454	0.05
34	18.34	33.71	6.12	370	20	21.43	33.85	5.58	23.52	438	0.09
43	17.59	33.78	6.12	348	30	19.16	33.73	6.04	24.03	389	0.13
52	16.10	33.86	5.88	309	50	16.50	33.84	5.98	24.76	320	0.20
61	15.52	33.93	4.68	291							
70	15.06	34.05	3.35	274							
138b)	11.16	34.32	1.31								
195b)	10.90	34.47	0.81								
238b)	10.54	34.49	0.21								
321b)	9.58	-	0.30								
431b)	8.34	34.51	0.17								

137.40 BLACK DOUGLAS; July 10, 1958; 2117 GCT; 25°00'N, 113°23.5'W; sounding, 1200 fm; wind, 340°, force 1; weather, partly cloudy; sea, moderate; wire angle, 04°.

8	23.37	33.86	5.34a)	488	0	24.3	(33.86)	(5.34)	(22.71)	(515)	(0.00)
17	21.25	33.78	5.54	438	10	23.00	33.85	5.36	23.08	480	0.05
36	17.60	33.73	6.17	352	20	20.61	33.77	5.64	23.68	422	0.09
45	16.60	33.58	6.12	340	30	18.40	33.74	6.07	24.23	370	0.13
54	15.63	33.62	6.12	317	50	16.10	33.60	6.14	24.67	328	0.20
63	14.46	33.59	5.28	294	75	13.82	33.71	4.64	25.25	273	0.28
72	14.06	33.72	4.72	277	100	12.11	33.83	3.33	25.68	232	0.34
86	12.58	33.66	4.27	253	150	11.38	34.34	1.15	26.21	182	0.45
100	12.11	33.83	3.33	232	200	10.61	34.48	0.72	26.46	158	0.53
113	11.64	33.95	2.76	215	250	10.15	34.54	0.36	26.58	146	0.61
134	11.40	34.18	1.79	194	300	9.48	34.49	0.27	26.66	139	0.69
161	11.34	34.41	0.81	175	400	7.87	34.44	0.25	26.88	118	0.82
191	10.70	34.46	0.79	161	500	7.07	34.49	0.20	27.03	104	0.94
235	10.34	34.54	0.42	148							
305	9.44	34.49	0.27	138							
395	7.96	34.44	0.25	120							
512	7.00	34.49	0.18	103							

a) All oxygen values appear to be 20 per cent high.
b) Pretrip; depth too uncertain for interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

137.50

BLACK DOUGLAS; July 11, 1958; 0320 GCT; 24°40'N, 114°01.5'W; sounding, 1700 fm; wind, direction missing, force 1; weather, partly cloudy; sea, moderate; wire angle, 06°.

6	20.84	33.77	5.75a)	428	0	22.3	(33.77)	(5.75)	(23.22)	(466)	(0.00)
15	20.44	33.77	5.84	418	10	20.64	33.77	5.81	23.68	423	0.04
34	19.30	33.76	5.88	390	20	19.78	33.73	5.88	23.88	404	0.08
43	19.18	33.84	5.79	381	30	19.27	33.70	5.88	24.00	391	0.12
52	18.86	33.87	5.82	372	50	18.99	33.86	5.81	24.17	376	0.20
61	18.43	33.96	5.86	355	75	17.66	34.01	5.94	24.62	334	0.29
70	17.88	34.00	5.99	339	100	13.27	33.68	5.48	25.32	266	0.37
84	17.20	34.01	5.84	323	150	11.28	34.10	3.12	26.05	197	0.48
97	13.78	33.69	5.62	274	200	10.59	34 44	1.80	26.44	160	0.57
109	12.47	33.71	5.03	248	250	10.00	34.49	1.07	26.57	147	0.65
131	11.78	34.00	3.18	213	300	9.19	34.49	0.84	26.71	134	0.73
158	11.10	34.15	3.09	191	400	8.24	34.51	0.26	26.87	119	0.86
189	10.69	34.42	2.04	164	500	7.02	34.44	0.24	27.00	107	0.98
233	10.24	34.48	1.18	152							
305	9.13	34.49	0.80	134							
395	8.28	34.51	0.27	120							
515	6.84	34.43	0.24	106							

137.60

BLACK DOUGLAS; July 11, 1958; 0917 GCT; 24°20'N, 114°39.5'W; sounding, 2000 fm; wind, direction missing, force 1; weather, fog; sea, moderate; wire angle, 05°.

8	21.88	33.82	5.51a)	452	0	22.2	(33.82)	(5.51)	(23.28)	(460)	(0.00)
17	20.42	33.78	5.66	416	10	21.75	33.82	5.52	23.41	448	0.04
36	19.91	33.89	5.78	395	20	20.33	33.79	5.67	23.77	414	0.09
45	18.27	33.72	6.17	368	30	20.05	33.86	5.75	23.90	402	0.13
54	17.82	33.73	6.04	357	50	18.02	33.73	6.11	24.32	362	0.20
63	17.15	33.68	6.06	345	75	15.95	33.64	6.12	24.74	322	0.29
72	16.14	33.64	6.12	326	100	14.66	33.83	4.70	25.17	281	0.37
86	15.38	33.68	5.81	307	150	12.10	34.21	1.82	25.98	204	0.49
99	14.72	33.82	4.75	283	200	11.00	34.45	0.79	26.36	167	0.58
112	14.16	33.94	3.81	263	250	10.29	34.54	0.54	26.56	148	0.66
134	12.82	34.12	2.32	224	300	9.70	34.58	0.40	26.69	136	0.74
160	11.76	34.27	1.54	193	400	8.46	34.53	0.24	26.86	120	0.87
192	11.14	34.42	0.85	172	500	7.42	34.51	0.25	27.00	107	0.99
236	10.48	34.52	0.60	153							
308	9.60	34.58	0.38	134							
398	8.50	34.53	0.24	121							
518	7.24	34.51	0.26	105							

a) All oxygen values appear to be 20 per cent high.

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
40.55-S	VII-7	0435	41°14.0'	125°44.0'	1700	340°	4	overcast	very rough	14.48	32.75	10.40	32.97
40.65-S	7	1023	40°53.5'	126°30.0'	1750	330°	4	overcast	very rough	16.24	32.79	12.65	32.79
43.42-S	6	1200	41°04.0'	124°20.5'	80	calm		fog	rough	11.58	33.34	9.61	33.51
43.45-S	6	1002	40°58.5'	124°35.0'	315	010°	4	fog	very rough	11.54	32.74	10.19	33.31
43.55-S	6	0255	40°34.0'	125°26.0'	1600	350°	4	fog	high	12.76	33.10	9.58	33.57
60.52-S	10	0450	37°53.5'	123°02.5'	42	320°	3	fog	moderate	11.66	33.42	9.87	33.69
60.65-S	10	1330	37°27.0'	123°59.0'	1995	340°	5	overcast	very rough	15.92	33.07	11.98	33.19
63.55-S	12	0430	37°14.0'	122°49.5'	120	320°	3	fog	moderate	12.90	32.66	9.50	33.48
63.65-S	11	2240	36°53.0'	123°32.0'	1950	330°	5	overcast	very rough	15.51	32.90	11.21	32.90
67.50-S	12	1050	36°49.0'	122°04.5'	140	320°	3	fog	moderate	11.51	33.62	9.56	33.78
67.65-S	12	1940	36°19.0'	123°08.5'	1900	340°	5	overcast	high	16.34	32.97	-	-
70.85-S	14	0400	34°59.0'	124°10.0'	2370	340°	6	clear	high	16.68	-	14.38	33.13
70.55-P	14	2330	36°03.0'	122°02.0'	710	320°	5	partly cloudy	high	12.60	33.36	10.61	33.51
70.65-P	14	1630	35°42.0'	122°43.0'	1100	290°	6	cloudy	high	16.42	32.99	13.90	33.02
70.75-P	14	0745	35°20.5'	123°32.0'	35	320°	7	cloudy	high	16.08	32.91	13.01	32.94
73.51-P	13	0210	35°35.0'	121°21.5'	206	340°	5	overcast	rough	11.86	33.57	10.11	33.74
73.65-P	13	1130	35°11.0'	122°20.5'	2300	320°	5	overcast	very rough	14.74	33.14	12.84	33.05
73.75-P	13	1845	34°51.5'	123°03.0'	2300	320°	5	cloudy	very rough	14.84	33.04	13.40	33.22
77.50-P	11	1640	35°05.5'	120°53.5'	75	320°	3	fog	rough	12.58	33.48	10.23	33.70

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
77.65-P	VII-11	0520	34°32.5'	121°57.0'	2350	320°	6	overcast	very rough	14.27	33.45	11.38	33.51
77.75-P	10	2050	34°11.5'	122°35.5'	2380	320°	6	overcast	very rough	16.60	-	12.64	33.22
77.85-P	10	1440	33°54.0'	123°18.0'	2680	320°	6	overcast	very rough	17.90	33.19	14.68	33.28
80.65-P	9	0745	33°57.5'	121°28.0'	2000	330°	6	overcast	rough	16.82	33.28	12.63	33.27
80.75-P	9	1445	33°35.5'	122°10.0'	2380	320°	6	overcast	very rough	16.96	33.12	13.96	33.18
80.85-P	9	2205	33°15.5'	122°51.5'	2500	320°	5	cloudy	very rough	17.57	33.01	14.41	33.01
83.40-P	8	1010	34°13.5'	119°21.5'	12	310°	2	fog	slight	15.42	33.59	-	-
83.65-P	7	1455	33°24.0'	121°04.0'	1670	320°	3	overcast	rough	16.18	33.24	12.69	33.08
83.75-P	7	0820	33°04.5'	121°46.5'	2400	310°	3	overcast	moderate	17.56	33.10	14.80	33.22
83.85-P	7	0110	32°41.5'	122°25.0'	2480	340°	3	overcast	rough	17.72	33.12	17.46	33.48
87.50-P	5	0830	33°20.0'	119°39.0'	44	230°	3	overcast	moderate	15.63	33.63	9.34	33.89
87.65-P	5	2245	32°41.5'	120°41.5'	2050	280°	3	overcast	moderate	17.86	33.22	16.02	33.15
87.75-P	6	0525	32°20.5'	121°18.5'	2400	300°	3	overcast	rough	17.16	33.22	15.28	33.31
87.85-P	6	1215	31°59.0'	121°56.0'	2400	270°	3	overcast	moderate	18.59	33.48	16.12	33.44
90.65-O	4	1209	32°09.0'	120°15.0'	2000+	310°	3	cloudy	rough	15.11	33.16	13.86	33.48
90.75-O	4	2020	31°43.0'	121°00.0'	2000+	320°	4	cloudy	rough	17.62	33.22	15.72	33.33
90.85-O	5	0300	31°35.0'	121°39.0'	2200	320°	4	cloudy	rough	18.83	33.55	18.11	33.49
93.35-O	7	0227	32°34.5'	117°50.5'	325	140°	3	partly cloudy	moderate	18.38	33.59	12.74	33.49
93.45-O	6	1952	32°14.5'	118°34.0'	-	300°	2	cloudy	moderate	15.64	33.65	9.47	33.80

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TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
93.55-O	VII-6	1315	31°52.0'	119°08.0'	400	300°	2	cloudy	moderate	15.88	33.53	13.96	33.39
93.65-O	6	0618	31°35.0'	119°54.0'	2000+	320°	3	cloudy	moderate	16.31	33.33	15.52	33.31
93.75-O	5	2315	31°20.0'	120°34.0'	2000	340°	3	cloudy	rough	18.67	33.48	15.86	33.35
93.85-O	5	1640	31°01.5'	121°18.5'	2000+	330°	3	cloudy	rough	18.72	33.48	16.55	33.47
97.35-O	8	1108	32°05.5'	117°28.5'	600+	320°	2	cloudy	slight	18.81	33.63	12.80	33.46
97.45-O	8	1725	31°46.5'	118°10.0'	600	320°	3	cloudy	slight	17.87	33.60	14.28	33.42
97.55-O	9	0111	31°26.0'	118°50.0'	1900+	310°	4	cloudy	rough	17.91	33.56	14.43	33.46
97.75-O	9	1550	30°35.5'	120°08.0'	2000	310°	4	cloudy	rough	18.98	33.62	16.26	33.44
97.85-O	9	2245	30°19.0'	120°50.0'	2000+	340°	4	partly cloudy	rough	19.26	33.57	15.96	33.39
100.35-O	13	0900	31°31.0'	117°07.0'	800	300°	1	cloudy	calm	19.28	33.62	15.24	33.45
100.45-O	11	1658	31°14.0'	117°35.0'	900	290°	1	cloudy	slight	18.03	33.58	16.52	33.43
100.55-O	11	1010	30°52.0'	118°19.5'	900	260°	2	overcast	moderate	17.62	33.32	16.98	33.42
100.65-O	11	0200	30°31.0'	119°04.0'	1700	300°	2	cloudy	moderate	19.25	33.69	16.47	33.49
100.75-O	10	1827	30°09.5'	119°48.0'	1900	310°	3	cloudy	moderate	-	33.58	-	33.58
100.85-O	10	1100	29°50.0'	120°28.0'	2000+	320°	4	cloudy	rough	19.36	33.54	17.80	33.82
103.45-O	14	0530	30°38.0'	117°24.0'	900	260°	2	cloudy	slight	18.28	33.48	15.93	33.42
103.55-O	14	1220	30°10.5'	118°03.0'	900	270°	1	cloudy	slight	19.05	33.60	17.34	33.57
103.65-O	14	1904	29°41.0'	118°46.5'	1800	320°	2	cloudy	moderate	19.52	33.67	19.10	33.66
103.75-O	15	0100	29°37.0'	119°24.0'	1800	310°	3	cloudy	moderate	19.61	33.62	17.64	33.64

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
103.85-O	VII-15	0744	29°14.5'	120°08.5'	1900+	340°	3	cloudy	moderate	20.28	33.72	17.97	33.75
107.45-O	18	0400	29°58.0'	116°59.5'	1000	320°	5	cloudy	rough	18.50	33.49	16.98	33.62
107.55-O	17	2100	29°41.0'	117°42.0'	1772	320°	5	cloudy	rough	19.48	33.61	18.46	33.53
107.65-O	16	1257	29°18.0'	118°26.0'	700+	340°	4	partly cloudy	rough	20.42	33.71	16.25	33.60
107.75-O	16	0530	29°00.5'	119°00.0'	2000	340°	5	cloudy	rough	20.06	33.72	19.44	33.68
107.85-O	15	2300	28°43.0'	119°37.0'	2000+	340°	2	cloudy	rough	19.86	33.67	17.04	33.59
110.45-O	19	0239	29°24.0'	116°37.0'	400	310°	4	cloudy	moderate	18.92	33.52	16.04	33.48
110.55-O	19	0920	29°00.0'	117°20.0'	1930	320°	3	cloudy	moderate	19.36	33.64	17.27	33.55
110.65-O	19	1745	28°37.5'	118°02.0'	1800	340°	4	cloudy	moderate	20.36	33.78	17.90	33.63
110.75-O	19	2300	28°24.5'	118°36.0'	2000	330°	3	partly cloudy	moderate	20.38	33.78	15.95	33.57
113.45-B	21	1030	28°47.5'	116°17.5'	1500	330°	5	partly cloudy	moderate	19.42	33.62	13.26	33.48
113.55-B	21	0353	28°32.0'	116°57.0'	1800	340°	4	partly cloudy	rough	19.08	33.51	16.52	33.51
113.65-B	20	2045	28°11.0'	117°38.0'	2000	340°	3	partly cloudy	rough	20.42	33.73	19.11	33.64
117.45-B	19	0835	28°18.0'	115°55.0'	1700	320°	3	partly cloudy	moderate	20.77	33.78	13.00	33.62
117.55-B	19	1430	27°57.5'	116°36.5'	2200	340°	4	partly cloudy	moderate	18.85	33.59	15.14	33.49
117.65-B	19	2052	27°37.5'	117°13.0'	2000	340°	3	partly cloudy	moderate	19.19	33.53	17.00	33.53
117.75-B	20	0230	27°17.5'	117°52.0'	2100	360°	3	partly cloudy	rough	21.33	34.13	19.96	34.14
120.40-B	17	1900	27°56.5'	115°14.0'	20	320°	4	partly cloudy	moderate	18.30	33.68	-	-
120.55-B	17	0935	27°23.0'	116°13.0'	2000	340°	5	partly cloudy	rough	20.65	33.75	16.71	33.57

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
120.65-B	VII-17	0253	27°03.0'	116°51.0'	2050	360°	5	cloudy	rough	21.04	33.93	19.16	34.02
120.75-B	16	2007	26°45.0'	117°29.0'	2000+	360°	5	cloudy	rough	21.59	33.78	19.29	33.78
120.85-B	16	1300	26°23.0'	118°08.0'	1950	340°	4	cloudy	moderate	21.67	33.82	19.62	33.88
123.45-B	15	0750	27°08.0'	115°11.0'	2250	320°	4	missing	moderate	20.38	33.76	16.44	33.52
123.55-B	15	1417	26°47.0'	115°49.0'	1950	320°	4	cloudy	moderate	21.50	33.78	17.39	33.53
127.45-B	14	1250	26°27.5'	114°45.0'	1800	320°	3	cloudy	moderate	20.75	33.71	16.25	33.68
127.55-B	14	0710	26°10.0'	115°24.5'	2000	290°	3	clear	slight	21.76	33.66	18.24	33.59
130.45-B	13	1225	25°58.0'	114°25.0'	2000	310°	3	partly cloudy	slight	22.22	33.84	15.28	33.72
130.55-B	13	1905	23°35.0'	115°04.0'	2100	320°	2	overcast	slight	22.58	33.84	19.56	33.89
133.35-B	12	0830	25°44.5'	113°26.5'	480	090°	2	fog	moderate	20.21	33.87	16.28	33.79
133.45-B	12	0116	25°24.5'	114°04.5'	1850	calm		fog	moderate	21.71	33.87	14.00	33.83
133.55-B	11	1755	25°04.0'	114°42.0'	1900	140°	1	fog	moderate	21.52	33.84	20.40	33.94
137.45-B	11	0012	24°50.0'	113°42.5'	1850	-	1	partly cloudy	moderate	21.06	33.86	16.18	33.68
137.55-B	11	0545	24°30.0'	114°20.0'	1850	140°	2	missing	moderate	21.02	33.81	19.50	33.91

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m

BLACK DOUGLAS; August 7, 1958; 0315 GCT; 29°22.5'N, 115°17.5'W; sounding, 30 fm; wind, 280°, force 2; weather, partly cloudy; sea, slight; wire angle, 02°. 113.30

0	18.30	33.55	5.20	382	0	18.30	33.55	5.20	24.11	382	0.00
9	14.15	33.58	4.91	288	10	13.98	33.58	4.85	25.11	286	0.03
18	13.24	33.56	3.60	273	20	13.20	33.56	3.56	25.26	272	0.06
27	12.78	33.58	3.29	262							

BLACK DOUGLAS; August 7, 1958; 0623 GCT; 29°12'N, 115°39'W; sounding, 650 fm; wind, 280°, force 3; weather, clear; sea, slight; wire angle, 08°. 113.35

0	17.08	33.53	6.41	355	0	17.08	33.53	6.41	24.39	355	0.00
9	15.42	33.58	6.22	315	10	14.80	33.58	6.22	24.94	303	0.03
28	13.54	33.56	6.26	278	20	14.00	33.57	6.23	25.10	287	0.06
38	12.86	33.54	4.60	267	30	13.40	33.56	6.18	25.22	276	0.09
47	11.86	33.50	4.49	252	50	11.66	33.50	4.45	25.51	248	0.14
56	11.42	33.51	4.43	244	75	11.20	33.60	4.07	25.67	233	0.20
66	11.38	33.51	4.47	242	100	10.82	33.84	3.12	25.92	209	0.26
79	11.12	33.66	-	227	150	11.08	34.24	1.40	26.18	184	0.36
93	10.90	33.78	3.25	214	200	10.59	34.34	1.10	26.35	168	0.45
106	10.77	33.92	2.98	202	250	10.30	34.40	0.99	26.45	159	0.53
128	10.98	34.09	1.92	193	300	9.57	34.39	0.86	26.56	148	0.61
155	11.08	34.27	1.39	182	400	8.62	34.39	0.63	26.71	134	0.76
186	10.68	34.31	1.19	172	500	7.15	34.31	0.58	26.88	118	0.89
230	10.58	34.40	1.07	163							
301	9.56	34.39	0.85	147							
392	8.72	34.39	0.66	135							
512	6.92	34.30	0.58	116							

BLACK DOUGLAS; August 7, 1958; 0925 GCT; 29°02'N, 115°58.5'W; sounding, 950 fm; wind, 290°, force 2; weather, clear; sea, slight; wire angle, 12°. 113.40

0	20.33	33.66	5.61	423	0	20.33	33.66	5.61	23.68	423	0.00
9	20.16	33.69	5.64	416	10	20.15	33.69	5.65	23.75	416	0.04
28	18.30	33.56	6.03	381	20	19.68	33.67	5.74	23.85	406	0.08
38	16.77	33.51	6.05	349	30	18.08	33.55	6.06	24.16	376	0.12
47	15.09	33.44	5.90	319	50	14.79	33.46	5.81	24.85	311	0.19
56	14.06	33.55	5.44	290	75	11.83	33.66	3.83	25.60	240	0.26
65	12.60	33.58	4.49	259	100	11.62	34.07	2.07	25.96	206	0.32
79	11.69	33.68	3.69	236	150	11.63	34.30	1.02	26.13	189	0.42
91	11.52	33.96	2.50	212	200	11.05	34.39	0.77	26.31	172	0.51
104	11.72	34.14	1.78	202	250	10.80	34.46	0.71	26.42	162	0.59
126	11.70	34.27	1.17	192	300	10.17	34.49	0.68	26.54	150	0.67
152	11.62	34.31	1.01	188	400	8.86	34.39	0.59	26.68	136	0.82
182	11.37	34.40	0.88	177	500	7.45	34.34	0.63	26.85	121	0.96
224	11.01	34.43	0.75	169							
294	10.24	34.49	0.69	152							
384	9.03	34.40	0.59	139							
503	7.41	34.34	0.64	120							

BLACK DOUGLAS; August 7, 1958; 2158 GCT; 29°11'N, 114°55'W; sounding, 41 fm; wind, 300°, force 3; weather, clear; sea, slight; wire angle, 03°. 115.27

0	19.00	33.55	5.84	398	0	19.00	33.55	5.84	23.94	398	0.00
9	16.82	33.57	6.30	346	10	16.65	33.56	6.28	24.52	343	0.04
18	13.88	33.50	5.04	290	20	13.75	33.50	4.94	25.11	286	0.07
32	12.60	33.60	4.10	258	30	12.79	33.58	4.23	25.36	263	0.10
55	11.29	33.75	3.37	224	50	11.46	33.71	3.46	25.70	230	0.14

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{3}^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{3}^{-5} 10 cm/g	ΔD dyn. m
115.30	BLACK DOUGLAS; August 7, 1958; 1949 GCT; 29°04'N, 115°08'W; sounding, 50 fm; wind, 300°, force 3; weather, partly cloudy; sea, slight; wire angle, 02°.										
0	18.65	33.58	6.24	388	0	18.65	33.58	6.24	24.04	388	0.00
9	17.74	33.57	6.09	367	10	17.60	33.57	6.06	24.29	364	0.04
23	15.45	33.51	5.77	321	20	15.60	33.51	5.78	24.72	324	0.07
41	14.03	33.57	4.85	288	30	14.60	33.53	5.27	24.95	302	0.10
60	11.72	33.57	3.82	244	50	12.82	33.57	4.26	25.34	264	0.16
78	11.51	33.69	3.31	232	75	11.55	33.65	3.55	25.65	235	0.22
115.35	BLACK DOUGLAS; August 7, 1958; 1608 GCT; 28°55'N, 115°27.5'W; sounding, 500 fm; wind, 310°, force 3; weather, partly cloudy; sea, moderate; wire angle, 11°.										
0	20.74	33.72	5.49	429	0	20.74	33.72	5.49	23.61	429	0.00
9	20.72	33.74	5.50	427	10	20.65	33.74	5.52	23.65	425	0.04
28	16.74	33.55	6.06	346	20	18.15	33.62	5.92	24.20	372	0.08
37	15.90	33.51	5.93	330	30	16.55	33.54	6.02	24.52	342	0.12
46	14.22	33.46	5.39	300	50	13.60	33.48	5.05	25.12	285	0.18
55	13.03	33.53	4.73	272	75	12.72	33.74	3.75	25.49	250	0.25
64	12.78	33.68	3.86	255	100	11.87	33.92	2.50	25.80	221	0.31
78	12.69	33.86	2.71	240	150	11.75	34.30	1.15	26.11	191	0.41
91	11.87	33.86	2.71	225	200	11.10	34.33	1.03	26.25	178	0.51
104	12.18	34.03	1.84	218	250	10.41	34.35	0.99	26.40	164	0.59
126	11.63	34.05	2.00	208	300	9.88	34.46	0.66	26.58	147	0.68
152	11.76	34.32a)	1.10	190	400	8.41	34.34	0.72	26.72	134	0.82
182	11.40	34.34	1.04	182	500	7.20	34.37	0.52	26.91	115	0.95
226	10.63	34.32	1.03	170							
299	9.90	34.46	0.66	148							
389	8.58	34.34	0.72	136							
509	7.08	34.37	0.50	114							
115.40	BLACK DOUGLAS; August 7, 1958; 1228 GCT; 28°45'N, 115°47'W; sounding, 750 fm; wind, 320°, force 2; weather, clear; sea, slight; wire angle, 12°.										
0	20.28	33.71	5.58	418	0	20.28	33.71	5.58	23.72	418	0.00
9	18.66	33.59	6.07	387	10	18.50	33.59	6.03	24.08	384	0.04
28	15.80	33.61	5.50	321	20	17.80	33.59	5.88	24.27	366	0.08
37	14.29	33.53	5.36	296	30	15.69	33.61	5.49	24.77	319	0.11
46	13.35	33.58	4.96	274	50	12.82	33.62	4.20	25.38	260	0.17
55	13.26	33.87	2.61	250	75	12.93	34.09	1.33	25.72	228	0.23
64	12.68	33.95	2.12	234	100	12.88	34.20	1.06	25.81	219	0.29
77	12.94	34.14	1.31	225	150	12.21	34.25	1.06	25.99	203	0.40
90	12.92	34.16	1.08	223	200	11.28	34.31	1.34	26.20	182	0.49
102	12.86	34.21	1.06	218	250	10.47	34.44	1.33	26.45	159	0.58
123	12.32	34.17	1.24	211	300	9.18	34.37	1.61	26.61	144	0.66
148	12.24	34.25	1.03	203	400	8.42	34.36	0.66	26.72	133	0.80
176	11.80	34.29	1.34	192	500	6.92	34.33	0.40	26.92	114	0.93
219	11.60	34.50	0.92	174							
289	9.23	34.37	1.64	144							
380	8.70	34.36	0.85	136							
500	6.92	34.33	0.40	114							
117.26	BLACK DOUGLAS; August 8, 1958; 0042 GCT; 28°56'N, 114°41'W; sounding, 42 fm; wind, 280°, force 3; weather, partly cloudy; sea, slight; wire angle, 05°.										
0	18.58	33.56	6.10	387	0	18.58	33.56	6.10	24.05	387	0.00
9	16.77	33.60	6.34	343	10	16.60	33.60	6.33	24.56	339	0.04
18	15.18	33.53	6.19	314	20	14.90	33.53	6.11	24.88	308	0.07
32	13.48	33.54	4.64	279	30	13.79	33.54	5.10	25.12	285	0.10
55	11.29	33.64	3.03	232	50	11.78	33.62	3.32	25.58	242	0.15

a) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_{-5}^{3}	Z	T	S	O_2	σ_t	δT_{-5}^{3}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

117.30

BLACK DOUGLAS; August 8, 1958; 0305 GCT; 28°48'N, 114°56.5'W; sounding, 55 fm; wind, 280°, force 3; weather, partly cloudy; sea, moderate; wire angle, 11°.

0	18.73	33.58	6.06	390	0	18.73	33.58	6.06	24.02	390	0.00
8	17.71	33.57	5.98	366	10	17.50	33.57	5.98	24.32	362	0.04
22	16.25	33.56	5.96	334	20	16.60	33.56	5.98	24.54	341	0.07
40	13.12	33.52	4.68	274	30	15.80	33.56	5.82	24.70	325	0.11
59	12.12	33.58a)	4.04	250	50	12.55	33.55	4.35	25.38	260	0.16
77	11.33	33.69a)	3.18	228	75	11.40	33.68	3.32	25.70	230	0.22

117.35

BLACK DOUGLAS; August 8, 1958; 0617 GCT; 28°38'N, 115°16'W; sounding, 100 fm; wind, 300°, force 3; weather, partly cloudy; sea, moderate; wire angle, 08°.

0	19.12	33.54	5.77	402	0	19.12	33.54	5.77	23.90	402	0.00
9	18.83	33.58	5.85	392	10	18.72	33.58	5.88	24.03	389	0.04
18	16.16	33.53	5.85	335	20	15.90	33.53	5.78	24.65	330	0.08
28	14.97	33.53	5.31	310	30	14.78	33.54	5.21	24.92	305	0.11
41	13.82	33.55	4.62	285	50	13.14	33.57	4.36	25.28	270	0.16
64	12.40	33.60	4.12	254	75	11.97	33.66	3.88	25.58	242	0.23
87	11.55	33.73	3.43	230	100	11.40	33.83	3.12	25.82	219	0.29
123	11.64	34.16	1.68	200	150	11.60	34.26	1.26	26.11	191	0.39
160	11.54	34.27	1.24	189							

117.40

BLACK DOUGLAS; August 8, 1958; 0910 GCT; 28°28'N, 115°35.5'W; sounding, 400 fm; wind, 320°, force 2; weather, partly cloudy; sea, slight; wire angle, 12°.

0	19.42	33.57	5.81	407	0	19.42	33.57	5.81	23.84	407	0.00
10	19.39	33.64	5.97	401	10	19.39	33.64	5.97	23.91	401	0.04
28	16.66	33.60	5.86	340	20	18.05	33.62	5.82	24.22	371	0.08
38	15.53	33.58	5.74	318	30	16.42	33.60	5.83	24.60	335	0.11
47	14.94	33.57	5.45	306	50	14.55	33.57	5.18	24.99	298	0.18
56	13.94	33.60	4.67	284	75	13.25	33.96	1.77	25.56	244	0.24
65	13.50	33.89	2.48	254	100	12.83	34.10	1.30	25.75	225	0.30
79	13.18	33.99	1.66	240	150	11.76	34.17	1.47	26.00	202	0.41
92	12.83	34.04	1.49	230	200	11.28	34.32	1.00	26.22	181	0.51
105	12.82	34.15	1.10	222	250	10.69	34.37	0.91	26.36	168	0.60
126	12.47	34.22	0.99	210	300	10.20	34.42	0.86	26.48	156	0.68
152	11.72	34.16	1.50	201	400	8.50	34.40	0.52	26.74	131	0.83
183	11.50	34.30	1.04	187	500	7.40	34.36	0.50	26.88	118	0.96
226	10.94	34.35	0.93	173							
297	10.23	34.42	0.87	156							
388	8.66	34.40	0.52	133							
508	7.32	34.36	0.50	117							

$118\frac{5}{.25}$

BLACK DOUGLAS; August 8, 1958; 1936 GCT; 28°40.5'N, 114°25.5'W; sounding, 45 fm; wind, 290°, force 3; weather, partly cloudy; sea, slight; wire angle, 00°.

0	19.51	33.60	5.77	407	0	19.51	33.60	5.77	23.84	407	0.00
9	18.72	33.57	5.89	390	10	18.50	33.57	5.90	24.08	384	0.04
28	15.74	33.56	5.92	323	20	17.12	33.57	5.92	24.40	354	0.08
46	13.36	33.58	4.53	273	30	15.40	33.56	5.86	24.80	316	0.11
69	11.22	33.71	2.53	226	50	12.97	33.60	4.18	25.33	265	0.17

$118\frac{5}{.30}$

BLACK DOUGLAS; August 8, 1958; 1700 GCT; 28°30.5'N, 114°45.5'W; sounding, 60 fm; wind, 300°, force 3; weather, partly cloudy; sea, slight; wire angle, 10°.

0	20.59	33.63	5.20	431	0	20.59	33.63	5.20	23.59	431	0.00
8	20.52	33.68	5.34	426	10	20.51	33.68	5.35	23.64	426	0.04
27	19.32	33.62	5.65	401	20	19.62	33.64	5.59	23.84	408	0.08
45	17.05	33.57	5.61	351	30	19.20	33.62	5.66	23.94	398	0.12
68	13.28	33.58	4.17	272	50	16.15	33.57	5.41	24.64	332	0.20
90	11.40	33.72	2.19	228	75	12.62	33.62	3.73	25.42	257	0.27

a) Salinity samples at 59 and 77 meters appear to have been reversed; they are assumed to be listed in correct order.

S10
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5808

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	ΔD dyn. m
$118^{5}.35$	BLACK DOUGLAS; August 8, 1958; 1312 GCT; 28°20.5'N, 115°05'W; sounding, 65 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 00°.										
0	20.71	33.68	5.35	431	0	20.71	33.68	5.35	23.59	431	0.00
9	20.73	33.68	5.38	432	10	20.73	33.68	5.38	23.59	431	0.04
28	19.29	33.58	5.74	403	20	20.57	33.66	5.41	23.62	428	0.09
46	16.96	33.58	5.90	348	30	19.17	33.58	5.77	23.92	400	0.13
69	13.79	33.82	2.94	264	50	15.95	33.64	5.59	24.75	321	0.20
93	13.01	33.87	2.25	246	75	13.58	33.84	2.73	25.40	259	0.27
					100	(12.87)	(33.88)	(2.17)	(25.58)	(242)	(0.34)
119.33	BLACK DOUGLAS; August 8, 1958; 1500 GCT; 28°19'N, 114°53'W; sounding, 62 fm; wind, 320°, force 3; weather, partly cloudy; sea, slight; wire angle, 04°.										
0	20.70	33.66	5.17	432	0	20.70	33.66	5.17	23.58	432	0.00
9	20.71	33.69	5.29	430	10	20.71	33.69	5.29	23.60	430	0.04
28	20.20	33.64	5.36	421	20	20.63	33.68	5.30	23.61	429	0.09
47	19.41	33.63	5.37	402	30	20.17	33.64	5.36	23.70	420	0.13
69	15.56	33.55	5.27	320	50	19.20	33.62	5.37	23.95	397	0.21
92	12.28	33.58	3.58	254	75	14.80	33.56	5.10	24.92	304	0.30
120.25	BLACK DOUGLAS; August 8, 1958; 2210 GCT; 28°23'N, 114°14.5'W; sounding, 28 fm; wind, 270°, force 3; weather, partly cloudy; sea, slight; wire angle, 00°.										
0	20.12	33.64	5.49	419	0	20.12	33.64	5.49	23.71	419	0.00
9	19.38	33.63	5.58	401	10	19.37	33.63	5.58	23.91	401	0.04
28	16.42	33.61	5.85	334	20	18.17	33.62	5.70	24.16	377	0.08
37	14.92	33.58	5.28	304	30	15.98	33.60	5.74	24.71	324	0.11
120.30	BLACK DOUGLAS; August 9, 1958; 0057 GCT; 28°13'N, 114°34'W; sounding, 52 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 10°.										
0	20.92	33.68	4.65	436	0	20.92	33.68	4.65	23.54	436	0.00
9	20.74	33.69	5.21	431	10	20.68	33.69	5.21	23.61	429	0.04
23	20.01	33.68	5.14	414	20	20.25	33.68	5.15	23.71	420	0.08
41	17.31	33.58	5.61	356	30	19.08	33.65	5.28	23.98	394	0.13
59	13.68	33.58	4.49	280	50	15.55	33.58	5.36	24.78	318	0.20
78	11.76	33.68	2.90	236	75	11.96	33.67	3.10	25.58	241	0.27
120.35	BLACK DOUGLAS; August 9, 1958; 0333 GCT; 28°03'N, 114°54'W; sounding, 47 fm; wind, 330°, force 4; weather, partly cloudy; sea, moderate; wire angle, 04°.										
0	20.68	33.69	5.39	430	0	20.68	33.69	5.39	23.60	430	0.00
9	20.55	33.66	5.39	428	10	20.54	33.66	5.40	23.62	428	0.04
28	17.66	33.55	6.04	367	20	19.60	33.61	5.65	23.83	408	0.08
46	15.52	33.55	5.44	320	30	17.40	33.55	6.03	24.34	360	0.12
69	12.74	33.68	2.95	254	50	15.00	33.56	5.10	24.88	308	0.19

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

120.45

BLACK DOUGLAS; August 9, 1958; 0839 GCT; 27°43'N, 115°33'W; sounding, 1150 fm; wind, 290°, force 2; weather, clear; sea, slight; wire angle, 05°.

0	19.84	33.95	5.82	390	0	19.84	33.95	5.82	24.02	390	0.00
10	19.88	33.89	5.73	395	10	19.88	33.89	5.73	23.97	395	0.04
29	17.00	33.68	5.35	342	20	18.48	33.76	5.60	24.23	370	0.08
38	15.78	33.73	4.70	312	30	16.80	33.68	5.28	24.57	338	0.11
48	14.68	33.77	4.07	286	50	14.27	33.76	3.98	25.18	279	0.17
57	13.63	33.73	3.90	268	75	12.78	33.88	3.12	25.60	240	0.24
66	13.00	33.82	3.48	249	100	12.19	34.00	2.70	25.80	220	0.30
79	12.68	33.90	2.91	238	150	11.70	34.40	0.90	26.21	182	0.40
93	12.28	33.95	2.86	226	200	11.40	34.51	0.50	26.34	169	0.49
105	12.10	34.08	2.29	214	250	10.78	34.58	0.42	26.50	154	0.57
128	11.88	34.31	1.28	192	300	10.00	34.56	0.40	26.63	142	0.65
154	11.69	34.42	0.83	181	400	8.00	34.36	0.55	26.80	126	0.78
185	11.37	34.43	0.78	174	500	6.95	34.36	0.40	26.94	112	0.91
229	11.05	34.58	0.45	158							
300	10.00	34.56	0.40	142							
391	8.10	34.36	0.56	128							
511	6.82	34.36	0.38	111							

130.30

BLACK DOUGLAS; August 10, 1958; 2035 GCT; 26°29'N, 113°29'W; sounding, 44 fm; wind, 300°, force 2; weather, overcast; sea, moderate; wire angle, 02°.

0	24.41	34.17	4.92	496	0	24.41	34.17	4.92	22.91	496	0.00
9	24.02	34.13	5.02	487	10	23.85	34.13	5.05	23.04	484	0.05
19	20.86	34.28	5.34	392	20	20.60	34.29	5.31	24.08	384	0.09
32	17.59	34.39	2.93	304	30	17.70	34.39	3.06	24.90	306	0.13
56	15.68	34.29	2.22	269	50	16.57	34.38	2.45	25.16	282	0.18

130.35

BLACK DOUGLAS; August 10, 1958; 1735 GCT; 26°17.5'N, 113°47'W; sounding, 200 fm; wind, 250°, force 2; weather, rain; sea, moderate; wire angle, 03°.

0	23.67	34.07	4.93	482	0	23.67	34.07	4.93	23.06	482	0.00
9	23.62	34.07	5.04	480	10	23.62	34.07	5.04	23.08	480	0.05
28	18.44	33.86	5.61	362	20	23.52	34.07	5.05	23.10	478	0.10
46	16.06	34.13	3.61	288	30	18.07	33.86	5.53	24.40	354	0.14
64	15.06	34.33	1.78	253	50	15.80	34.20	3.18	25.22	276	0.20
91	14.50	34.63	0.58	219	75	14.65	34.45	1.30	25.64	236	0.26
136	13.76	34.61	0.47	206	100	14.48	34.66	0.50	25.84	217	0.32
182	12.72	34.67	0.39	182	150	13.47	34.62	0.44	26.03	199	0.43
227	11.77	34.61	0.25	168	200	12.00	34.60	0.38	26.30	173	0.52
273	11.00	34.62	0.21	154	250	11.39	34.62	0.25	26.43	161	0.61
323	10.30	34.56	0.27	147	300	10.61	34.59	0.25	26.54	150	0.69

130.40

BLACK DOUGLAS; August 10, 1958; 1410 GCT; 26°09'N, 114°07.5'W; sounding, 1150 fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 14°.

0	24.00	34.02	4.74	495	0	24.00	34.02	4.74	22.92	495	0.00
9	23.74	34.03	4.96	486	10	23.65	34.03	5.00	23.04	484	0.05
28	17.38	33.62	5.89	355	20	20.38	33.80	5.60	23.77	414	0.09
37	16.48	33.65	5.64	333	30	17.15	33.62	5.83	24.44	350	0.13
46	16.00	33.68	5.60	320	50	16.20	33.80	4.90	24.80	316	0.20
55	15.12	33.75	4.67	296	75	14.60	34.22	2.23	25.47	252	0.27
64	15.57	34.14	3.02	277	100	13.70	34.42	1.30	25.81	219	0.33
78	14.36	34.23	2.03	246	150	12.66	34.65	0.38	26.21	182	0.43
90	13.96	34.38	1.35	226	200	11.35	34.58	0.30	26.40	164	0.52
103	13.62	34.44	1.24	216	250	10.92	34.60	0.26	26.50	154	0.60
125	13.17	34.54	0.60	199	300	10.22	34.58	0.22	26.60	144	0.68
150	12.66	34.65	0.38	182	400	9.06	34.49	0.30	26.72	133	0.82
182	11.80	34.62	0.35	168	500	7.64	34.43	0.34	26.89	117	0.95
224	11.26	34.61	0.29	160							
294	10.28	34.58	0.22	145							
384	9.24	34.50	0.27	135							
501	7.63	34.43	0.34	117							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10^{-5} cm/g	ΔD dyn. m

130.45 BLACK DOUGLAS; August 10, 1958; 1100 GCT; 25°59'N, 114°25.5'W; sounding, 2000 fm; wind, 280°, force 2; weather, partly cloudy; sea, slight; wire angle, 09°.

0	23.77	34.01	4.81	488	0	23.77	34.01	4.81	22.99	488	0.00
10	23.82	33.98	4.96	493	10	23.82	33.98	4.96	22.94	493	0.05
28	19.56	33.78	5.50	395	20	21.65	33.88	4.99	23.48	442	0.10
38	17.85	33.69	5.58	360	30	19.10	33.76	5.53	24.07	385	0.14
47	17.06	33.70	4.81	342	50	16.77	33.71	4.90	24.60	335	0.21
57	15.74	33.76	5.33	309	75	12.98	33.68	3.92	25.39	260	0.28
65	13.86	33.64	4.53	279	100	11.97	34.04	2.68	25.88	213	0.34
79	12.68	33.69	3.72	253	150	11.45	34.42	1.03	26.26	176	0.44
93	11.66	33.95	3.32	215	200	11.45	34.65	0.27	26.44	160	0.53
105	11.47	33.98	2.50	210	250	10.80	34.62	0.24	26.54	151	0.61
128	12.35	34.44	0.88	192	300	10.25	34.62	0.24	26.64	141	0.68
155	11.22	34.42	1.09	173	400	8.48	34.49	0.16	26.82	124	0.82
186	11.62	34.66	0.32	162	500	7.41	34.44	0.17	26.94	112	0.94
231	11.04	34.63	0.24	154							
304	10.18	34.62	0.24	140							
396	8.55	34.49	0.16	125							
515	7.26a)	34.44	0.18	111							

a) Alternate value, 7.36°C, not used in interpolation.

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
110.33-B	VIII-6	2200	29°50.5'	115°52.0'	50	calm		partly cloudy	smooth	15.60	33.49	12.54	33.48
110.35-B	6	2030	29°46.5'	116°00.0'	600	220°	1	partly cloudy	smooth	19.54	33.52	15.34	33.41
110.40-B	6	1800	29°42.0'	116°19.5'	1250	calm		cloudy	smooth	19.48	33.51	16.26	33.46
112.30-B	21	0700	29°35.0'	115°29.0'	-	-	-	missing	missing	15.44	33.53	-	-
116.25-B	20	0805	29°06.0'	114°40.5'	-	-	-	missing	missing	17.94	33.55	-	-
117.24-B	20	0555	28°55.0'	114°31.0'	-	-	-	missing	missing	18.00	33.56	-	-
118.28-B	20	0045	28°43.5'	114°45.0'	53	300°	4	missing	moderate	20.78	33.58	14.30	33.56
118.33-B	19	2210	28°29.5'	115°00.0'	70	320°	4	partly cloudy	moderate	22.18	33.70	18.14	33.62
118.36-B	19	2000	28°20.0'	115°11.0'	-	-	-	missing	missing	21.38	33.69	-	-
119.37-B	16	2020	28°07.5'	115°09.5'	-	-	-	missing	missing	20.76	33.68	-	-
119.40-B	17	0645	28°04.0'	115°18.0'	-	-	-	missing	missing	19.04	33.76	-	-
119^{5}.39-B	17	0755	28°02.0'	115°12.5'	-	-	-	missing	missing	21.45	33.68	-	-
120.33-B	19	0020	28°10.5'	114°50.0'	52	320°	5	partly cloudy	rough	22.28	-	19.90	-
120.40-B	9	0555	27°56.5'	115°14.0'	21	240°	2	partly cloudy	missing	18.68	33.58	-	-
120^{5}.27-B	18	1135	28°11.0'	114°15.5'	20	320°	3	clear	moderate	21.80	33.62	-	-
120^{5}.31-B	18	2200	28°06.0'	114°33.0'	45	320°	5	partly cloudy	moderate	22.36	-	16.68	-
120^{5}.37-B	18	0430	27°53.0'	115°00.5'	-	-	-	missing	missing	23.48	33.84	-	-
121.30-B	18	0900	27°58.5'	114°26.5'	18	310°	3	clear	moderate	22.12	33.76	-	-
121.34-B	18	0645	27°52.5'	114°42.5'	20	340°	4	clear	moderate	22.28	33.67	-	-

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
123.37-B	VIII-9	1810	27°24.0'	114°39.5'	40	290°	2	partly cloudy	slight	17.84	34.04	15.44	-
123.42-B	9	1545	27°14.0'	114°59.5'	875	290°	2	partly cloudy	slight	19.65	33.66	14.20	33.69
123.45-B	9	1315	27°08.0'	115°11.0'	1250	290°	2	partly cloudy	moderate	20.40	33.67	15.66	33.48
126.34-B	14	1630	27°06.0'	114°13.0'	-	-	-	missing	missing	20.96	34.16	-	-
127.32-B	13	2025	26°58.0'	113°58.0'	-	-	-	missing	missing	19.86	34.15	-	-
127.34-B	10	0000	26°55.5'	114°06.0'	43	270°	3	partly cloudy	moderate	22.66	34.17	16.73	34.24
127.40-B	10	0320	26°43.5'	114°29.5'	1550	300°	3	partly cloudy	moderate	21.62	33.96	14.54	33.73
127.45-B	10	0610	26°33.5'	114°48.5'	1900	320°	2	partly cloudy	moderate	22.34	33.78	15.44	33.53
129.28-B	12	0440	26°43.5'	113°27.0'	-	-	-	missing	missing	23.94	34.39	-	-
133.25-B	11	0645	26°04.5'	112°48.0'	44	300°	2	missing	missing	25.60	34.17	17.34	34.28
133.30-B	11	0930	25°54.5'	113°07.5'	105	300°	2	missing	slight	25.25	34.34	17.76	34.22
137.23-B	11	1735	25°34.0'	112°18.5'	40	270°	1	cloudy	slight	26.05	34.30	19.95	34.59
137.30-B	11	1420	25°20.0'	112°45.5'	135	-	-	cloudy	slight	25.83	34.29	17.91	33.85

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T,S}^{-5}$ 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T,S}^{-5}$ 10^3 cm/g	ΔD dyn. m

90.30

ORCA; September 10, 1958; 0940 GCT; 33°24.5'N, 117°55'W; sounding, 340 fm; wind, 240°, force 1; weather, clear; sea, moderate; wire angle, 08°.

1	21.65	33.51	4.53	468	0	(21.65)	(33.51)	(4.53)	(23.20)	(468)	(0.00)
10	21.66	33.53	5.41	467	10	21.66	33.53	5.41	23.21	467	0.05
30	15.70	33.22	6.26	347	20	19.94	33.44	5.68	23.59	431	0.09
40	14.70	33.15	6.29	332	30	15.70	33.22	6.26	24.47	347	0.13
50	13.76	33.18	6.19	311	50	13.76	33.18	6.19	24.86	311	0.20
60	13.01	33.22	5.47	293	75	11.96	33.27	5.10	25.28	270	0.27
71	12.12	33.26	5.18	274	100	10.54	33.37	4.43	25.61	238	0.33
85	11.54	33.31	4.91	260	150	9.41	33.68	3.65	26.02	198	0.44
99	10.56	33.37	4.44	239	200	8.84	33.93	2.59	26.32	171	0.54
114	10.09	33.47	4.17	224	250	8.50	34.07	1.96	26.49	155	0.62
135	9.66	33.64	3.84	205	300	8.08	34.17	1.80	26.63	142	0.70
164	9.15	33.71	3.48	191	400	7.26	34.26	0.86	26.82	124	0.84
196	8.85	33.91	2.60	172	500	6.55	34.31	0.50	26.96	111	0.96
241	8.58	34.05	1.98	157							
315	7.96	34.20	1.75	138							
410	7.20	34.27	0.73	122							
534	6.26	34.32	0.43	106							

90.30

ORCA; September 14, 1958; 0530, 0607 GCT; 33°24'N, 117°55.5'W; sounding, 321 fm; wind, calm; weather, clear; sea, moderate; wire angle, 02°, 02°.

0	21.42	33.44	5.36	467	0	21.42	33.44	5.36	23.21	467	0.00
10	21.37	33.48	5.37	462	10	21.37	33.48	5.37	23.26	462	0.05
30	16.01	33.25	6.22	352	20	19.74	33.41	5.66	23.64	426	0.09
40	15.85	33.49	5.98	330	30	16.01	33.25	6.22	24.42	352	0.13
50	14.70	33.44	5.89	311	50	14.70	33.44	5.89	24.85	311	0.20
60	13.24	33.32	5.45	290	75	11.70	33.30	4.97	25.35	264	0.27
70	12.06	33.30	5.13	270	100	11.10	33.53	4.45	25.64	236	0.33
84	11.28	33.32	4.01r	255	150	9.88	33.83	2.78	26.08	194	0.44
98	11.18	33.48	4.61	241	200	9.48	34.07	2.17	26.34	170	0.53
112	10.70	33.68	3.43	218	250	8.38	34.05	2.10	26.49	155	0.62
137	10.16	33.78	2.99	202	300	8.27	34.16	1.50	26.60	145	0.69
165	9.64	33.88	2.59	186	400	7.35	34.25	0.70	26.80	126	0.83
					500	6.41	34.30	0.53	26.96	110	0.96
197	9.52	34.07	2.18	170							
244	8.41	34.04	2.14	156							
321	8.24	34.20	1.33	142							
417	7.14	34.26	0.62	122							
543	6.02	34.33	0.50	103							

90.30

ORCA; September 17, 1958; 0948 GCT; 33°24.5'N, 117°55'W; sounding, 300+ fm; wind, calm; weather, clear; sea, smooth; wire angle, 00°.

0	21.25	33.44	5.34	462	0	21.25	33.44	5.34	23.26	462	0.00
10	21.09	33.40	5.34	461	10	21.09	33.40	5.34	23.28	461	0.05
30	16.00	33.15	6.28	359	20	18.50	33.27	5.84	23.84	407	0.09
41	14.79	33.18	6.20	331	30	16.00	33.15	6.28	24.35	359	0.13
49	13.52	33.22	5.92	303	50	13.45	33.23	5.85	24.96	301	0.19
60	12.69	33.38	4.77	276	75	11.40	33.44	4.29	25.50	249	0.26
69	11.33	33.31	4.80	256	100	10.87	33.58	3.80	25.71	229	0.32
83	11.28	33.55	4.19	238	150	9.99	33.79	2.93	26.04	198	0.43
98	10.92	33.58	3.98	229	200	8.81	33.94	2.47	26.34	170	0.53
112	10.74	33.67	3.39	220	250	8.66	34.13	1.70	26.51	153	0.61
135	10.26	33.72	3.15	208	300	8.02	34.14	1.63	26.62	143	0.68
164	9.74	33.86	2.75	189	400	7.38	34.23	0.89	26.79	127	0.82
196	8.84	33.93	2.52	170	500	6.45	34.30	0.52	26.96	110	0.95
244	8.76	34.13	1.72	154							
321	7.83	34.14	1.60	140							
419	7.26	34.25	0.72	124							
548	5.84	34.33	0.42	100							

SIO

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
90.37	ORCA; September 10, 1958; 1505, 1555 GCT; 33°10.5'N, 118°23.5'W; sounding, 600+ fm; wind, 290°, force 4; weather, partly cloudy; sea, moderate; wire angle, 18°, 18°.										
0	21.36	33.48	5.32	462	0	21.36	33.48	5.32	23.26	462	0.00
10	21.36	33.49	5.37	462	10	21.36	33.49	5.37	23.26	462	0.05
28	17.05	33.27	6.29	373	20	21.35	33.49	5.38	23.27	461	0.09
43	14.32	33.17	6.37	327	30	16.55	33.25	6.34	24.29	364	0.13
52	13.44	33.19	6.18	304	50	13.57	33.18	6.22	24.89	307	0.20
63	12.86	33.22	5.42	291	75	11.72	33.34	4.88	25.38	261	0.27
72	11.95	33.31	4.99	267	100	10.30	33.53	4.08	25.78	223	0.33
91	10.74	33.49	4.38	233	150	9.08	33.82	3.00	26.20	183	0.44
105	10.12	33.55	3.96	219	200	8.52	34.04	2.20	26.47	157	0.52
					250	8.02	34.09	1.64	26.58	146	0.60
119	9.78	33.59	3.73	210	300	7.72	34.17	1.27	26.69	136	0.67
139	9.26	33.75	3.22	190	400	7.10	34.29	0.72	26.86	120	0.81
168	8.82	33.90	2.65	173	500	6.48	34.32	0.48	26.98	109	0.93
204	8.49	34.05	2.17	156							
257	7.96	34.10	1.56	145							
336	7.50	34.23	1.05	129							
436	6.88	34.31	0.56	115							
578	5.95	34.33	0.39	102							
90.37	ORCA; September 14, 1958; 1105, 1147 GCT; 33°10.5'N, 118°23.5'W; sounding, 678 fm; wind, 020°, force 1; weather, clear; sea, moderate; wire angle, 05°, 03°.										
0	21.20	33.42	5.39	463	0	21.20	33.42	5.39	23.26	463	0.00
10	21.20	33.47	5.37	459	10	21.20	33.47	5.37	23.30	459	0.05
30	17.36	33.37	6.17	372	20	21.16	33.47	5.38	23.31	458	0.09
40	15.14	33.23	6.44	335	30	17.36	33.37	6.17	24.20	372	0.13
50	13.72	33.17	6.36	330	50	13.72	33.17	6.36	24.86	310	0.20
60	13.19	33.17	6.12	300	75	12.26	33.33	5.03	25.26	272	0.27
69	12.60	33.30	5.27	280	100	10.61	33.50	4.07	25.70	230	0.34
84	11.68	33.38	4.71	258	150	9.00	33.85	2.98	26.24	179	0.44
98	10.62	33.50	4.08	230	200	8.53	34.00	2.43	26.44	160	0.53
113	9.96	33.57	3.91	215	250	8.01	34.10	1.92	26.59	146	0.61
136	9.35	33.73	3.40	193	300	7.78	34.18	1.43	26.68	137	0.68
163	8.84	33.91	2.78	172	400	6.99	34.19	0.90	26.81	125	0.82
					500	6.40	34.27	0.46	26.95	112	0.94
198	8.54	34.00	2.44	161							
246	8.01	34.10	1.94	146							
323	7.61	34.20	1.25	133							
422	6.80	34.19	0.80	123							
549	6.13	34.36	0.37	101							
90.37	ORCA; September 17, 1958; 1545 GCT; 33°10.5'N, 118°23.5'W; sounding, 600 fm; wind, 270°, force 3; weather, cloudy; sea, slight; wire angle, 03°.										
0	20.41	33.44	5.22	441	0	20.41	33.44	5.22	23.49	441	0.00
10	20.38	33.43	4.72	441	10	20.38	33.43	4.72	23.49	441	0.04
30	19.31	33.37	5.25	419	20	20.25	33.42	4.78	23.51	438	0.09
45	14.58	33.15	5.80	329	30	19.31	33.37	5.25	23.72	419	0.13
55	13.60	33.15	5.97	310	50	14.12	33.15	5.88	24.76	320	0.20
66	12.56	33.22	5.47	285	75	11.85	33.30	5.26	25.32	266	0.28
76	11.82	33.30	5.24	266	100	10.30	33.50	4.05	25.75	226	0.34
95	10.44	33.48	4.12	229	150	9.13	33.76	3.32	26.15	188	0.44
110	10.05	33.55	3.94	218	200	8.56	33.99	2.40	26.42	162	0.53
124	9.60	33.63	3.69	204	250	7.92	34.06	1.92	26.57	148	0.61
148	9.16	33.76	3.34	188	300	7.52	34.13	1.43	26.68	137	0.69
176	8.87	33.89	2.73	174	400	6.95	34.23	0.72	26.84	122	0.82
213	8.38	34.02	2.24	157	500	6.38	34.29	0.45	26.96	110	0.94
266	7.76	34.07	1.81	144	600	(5.83)	(34.34)	(0.40)	(27.07)	(100)	(1.05)
347	7.29	34.19	1.01	129							
447	6.64	34.26	0.50	116							
590	5.90	34.33	0.40	102							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m
ORCA; September 10, 1958; 2235, 2248 GCT; 32°55'N, 118°56'W; sounding, 800 fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 11°, 11°.											90.45
0	20.41	33.51	5.41	436	0	20.41	33.51	5.41	23.54	436	0.00
10	20.40	33.51	5.57	436	10	20.40	33.51	5.57	23.54	436	0.04
					20	15.97	33.35	5.90	24.52	343	0.08
34	14.34	33.30	6.00	313	30	14.80	33.31	5.97	24.74	322	0.12
44	13.38	33.37	5.43	289	50	12.90	33.39	5.18	25.19	279	0.18
58	12.15	33.42	4.83	263	75	11.20	33.50	4.44	25.60	240	0.24
69	11.68	33.48	4.53	250	100	9.90	33.61	3.82	25.90	211	0.30
78	10.86	33.52	4.39	233	150	9.03	33.92	2.69	26.30	174	0.39
98	9.95	33.60	3.83	212	200	8.65	34.10	2.00	26.49	155	0.48
115	9.40	33.78	3.15	190	250	8.16	34.16	1.65	26.61	143	0.55
130	9.44	33.80u	3.13		300	7.80	34.17	1.56	26.67	138	0.63
153	8.93	33.93	2.57	172	400	6.99	34.24	1.12	26.85	121	0.76
189	8.75	34.06	2.18	159	500	6.43	34.29	0.64	26.96	111	0.88
226	8.36	34.16	1.73	146	600	5.89	34.36	0.48	27.08	99	0.99
282	7.94	34.16	1.60	140							
368	7.22	34.22	1.37	126							
477	6.58	34.28	0.69	113							
626	5.78	34.38	0.42	96							
ORCA; September 14, 1958; 1643 GCT; 32°57'N, 118°56.5'W; sounding, 950 fm; wind, 120°, force 2; weather, clear; sea, rough; wire angle, 08°.											90.45
0	19.78	33.50	5.47	420	0	19.78	33.50	5.47	23.70	420	0.00
10	19.35	33.49	5.64	411	10	19.35	33.49	5.64	23.80	411	0.04
30	13.41	33.35	5.48	291	20	14.08	33.37	5.49	24.93	304	0.08
40	12.31	33.37	4.80	269	30	13.41	33.35	5.48	25.06	291	0.11
51	11.76	33.41	4.53	256	50	11.80	33.41	4.57	25.42	256	0.16
60	11.20	33.46	4.46	243	75	10.15	33.54	3.92	25.81	220	0.22
68	10.38	33.52	4.05	225	100	9.59	33.68	3.44	26.01	201	0.28
85	9.92	33.58	3.80	233	150	8.92	33.99	2.55	26.36	167	0.37
99	9.60	33.68	3.45	201	200	8.40	34.08	1.95	26.51	153	0.45
112	9.43	33.77	3.23	191	250	8.05	34.15	1.70	26.62	143	0.52
136	9.08	33.90	2.78	176	300	7.66	34.19	1.43	26.72	134	0.60
164	8.73	34.05	2.29	160	400	6.84	34.26	0.71	26.88	118	0.73
196	8.44	34.07	2.00	154	500	6.40	34.29	0.50	26.96	110	0.84
243	8.08	34.14	1.72	143							
320	7.46	34.21	1.29	130							
415	6.78	34.27	0.65	116							
541	6.22	34.30	0.47	107							
ORCA; September 17, 1958; 2107, 2149 GCT; 32°55'N, 118°56'W; sounding, 900 fm; wind, 270°, force 3; weather, cloudy; sea, slight; wire angle, 09°, 08°.											90.45
0	20.02	33.39	5.51	435	0	20.02	33.39	5.51	23.55	435	0.00
10	19.74	33.38	5.51	428	10	19.74	33.38	5.51	23.62	428	0.04
					20	19.50	33.37	5.53	23.67	423	0.09
30	14.45	33.20	5.83	322	30	14.45	33.20	5.83	24.73	322	0.12
45	13.10	33.33	5.42	287	50	13.01	33.32	5.46	25.11	286	0.18
55	12.92	33.31	5.48a)	285	75	11.44	33.42	4.51	25.49	250	0.25
65	12.16	33.38	4.92	266	100	9.77	33.62	3.80	25.94	208	0.31
74	11.45	33.42	4.52	250	150	8.95	33.90	2.60	26.28	175	0.41
93	10.00	33.59	3.96	214	200	8.62	34.02	2.14	26.44	160	0.49
107	9.59	33.66	3.65	202	250	8.10	34.09	1.70	26.57	148	0.57
121	9.35	33.77	3.07	190	300	7.72	34.11	1.46	26.64	141	0.64
144	8.98	33.89	2.64	176	400	6.99	34.18	0.98	26.80	126	0.78
172	8.85	33.96	2.39	168	500	6.40	34.27	0.62	26.95	112	0.91
209	8.54	34.04	2.07	158	600	(5.82)	(34.35)		(27.08)	(99)	(1.02)
261	8.00	34.10	1.62	146							
340	7.41	34.12	1.32	136							
439	6.71	34.22	0.70	119							
580	5.92	34.33	0.50	101							

a) Alternate value, 5.24 ml/L, not used in interpolation.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10 cm/g	ΔD dyn. m
90.50	ORCA; September 11, 1958; 0255 GCT; 32°44'N, 119°15'W; sounding, 112 fm; wind, 320°, force 5; weather, clear; sea, very rough; wire angle, 20°.										
0	19.14	33.45	5.68	409	0	19.14	33.45	5.68	23.82	409	0.00
9	19.14	33.46	5.69	408	10	19.13	33.46	5.69	23.84	407	0.04
28	18.76	33.42	5.71	402	20	19.08	33.45	5.69	23.85	406	0.08
47	14.98	33.28	6.32	328	30	18.70	33.42	5.72	23.90	401	0.12
70	12.26	33.40	4.86	267	50	14.78	33.29	6.25	24.72	324	0.19
94	11.23	33.52	4.26	240	75	12.00	33.42	4.70	25.38	260	0.27
					100	(10.90)	(33.57)	(4.05)	(25.70)	(230)	(0.33)
90.50	ORCA; September 14, 1958; 2105 GCT; 32°45.5'N, 119°14.5'W; sounding, 128 fm; wind, 300°, force 3; weather, clear; sea, rough; wire angle, 01°.										
0	19.98	33.53	5.68	424	0	19.98	33.53	5.68	23.67	424	0.00
10	19.12	33.48	5.62	406	10	19.12	33.48	5.62	23.85	406	0.04
30	16.64	33.40	5.68	355	20	18.88	33.47	5.63	23.91	401	0.08
50	13.14	33.29	5.80	290	30	16.64	33.40	5.68	24.39	355	0.12
76	11.60	33.40	4.98	254	50	13.14	33.29	5.80	25.07	290	0.18
100	10.67	33.57	3.99	226	75	11.63	33.40	5.01	25.44	256	0.25
					100	10.67	33.57	3.99	25.74	226	0.31
90.50	ORCA; September 18, 1958; 0145 GCT; 32°44.5'N, 119°16.5'W; sounding, 180 fm; wind, 300°, force 4; weather, cloudy; sea, moderate; wire angle, 18°.										
0	19.08	33.47	5.55	406	0	19.08	33.47	5.55	23.86	406	0.00
9	19.28	33.44	5.60	413	10	19.28	33.44	5.60	23.78	413	0.04
28	17.06	33.36	5.85	367	20	18.05	33.39	5.79	24.05	387	0.08
47	13.62	33.30	5.55	299	30	17.05	33.40	5.85	24.29	364	0.12
73	11.52	33.37	4.84	256	50	13.45	33.33	5.45	25.05	292	0.18
96	9.75	33.62	3.53	208	75	11.40	33.38	4.83	25.46	253	0.25
					100	(9.48)	(33.64)	(3.35)	(26.00)	(202)	(0.31)
90.60	ORCA; September 11, 1958; 1055, 1240 GCT; 32°22'N, 119°57.5'W; sounding, 450+ fm; wind, 300°, force 6; weather, clear; sea, very rough; wire angle, 26°, 22°.										
0	18.88	33.26	5.86	416	0	18.88	33.26	5.86	23.74	416	0.00
9	18.85	33.31	5.56	412	10	18.86	33.31	5.57	23.78	412	0.04
27	18.89	33.26	5.66	416	20	18.87	33.28	5.61	23.76	415	0.08
40	16.22	33.24	6.19	357	30	18.77	33.25	5.70	23.76	415	0.12
50	15.37	33.25	6.02	338	50	15.37	33.25	6.02	24.57	338	0.20
59	14.66	33.22	6.16	326	75	13.78	33.21	6.09	24.87	309	0.28
69	14.06	33.21	6.13	315	100	11.26	33.27	5.23	25.40	259	0.35
86	13.08	33.21	5.94	295	150	9.23	33.64	4.02	26.05	197	0.47
98	11.36	33.26	5.26	261	200	8.47	33.96	2.93	26.41	163	0.56
111	10.59	33.35	5.08	241	250	7.77	33.99	2.36	26.54	150	0.64
131	9.63	33.44	4.73	220	300	7.12	34.08	1.64	26.70	135	0.71
155	9.16	33.68	3.88	194	400	6.41	34.14	0.82	26.84	122	0.85
					500	5.82	34.20	0.57	26.97	110	0.97
201	8.46	33.96	2.93	163							
251	7.76	33.99	2.35	150							
327	6.86	34.11	1.37	130							
423	6.30	34.15	0.74	120							
559	5.44	34.26	0.48	101							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	ΔD dyn. m
ORCA; September 15, 1958; 0435 GCT; 32°23'N, 119°52.5'W; sounding, 500 fm; wind, 300°, force 3; weather, clear; sea, very rough; wire angle, 08°.											90.60
0	18.72	33.38	5.67	404	0	18.72	33.38	5.67	23.88	404	0.00
10	18.65	33.42	–	400	10	18.65	33.42		23.92	400	0.04
30	18.42	33.40	5.71	395	20	18.54	33.41	5.68	23.95	397	0.08
40	16.46	33.34	6.14	355	30	18.42	33.40	5.71	23.97	395	0.12
50	15.58	33.31	6.20	338	50	15.58	33.31	6.20	24.56	338	0.19
59	14.71	33.25	6.36	325	75	13.70	33.29	5.60	24.95	302	0.27
70	14.28	33.31	5.51	311	100	11.26	33.31	5.20	25.44	255	0.34
84	12.43	33.23	5.80	283	150	9.40	33.59	4.32	25.98	204	0.46
100	11.26	33.31	5.20	255	200	8.50	33.92	2.92	26.38	166	0.55
114	10.28	33.36	4.74	235	250	7.78	34.05	2.08	26.58	146	0.63
138	9.60	33.48	4.67	216	300	7.38	34.11	1.60	26.70	136	0.71
166	9.14	33.71	3.70	192	400	6.40	34.19	0.90	26.89	117	0.84
199	8.50	33.92	2.92	166	500	5.92	34.27	0.57	27.00	106	0.96
245	7.81	34.04	2.13	148							
319	7.19	34.14	1.36	132							
413	6.32	34.20	0.87	116							
540	5.74	34.31	0.45	100							
ORCA; September 18, 1958; 0858 GCT; 32°25'N, 119°57.5'W; sounding, 450 fm; wind, 240°, force 5; weather, clear; sea, rough; wire angle, 15°.											90.60
0	18.83	33.28	5.51	414	0	18.83	33.28	5.51	23.77	414	0.00
10	18.83	33.31	5.53	412	10	18.83	33.31	5.53	23.79	412	0.04
28	18.83	33.28	5.46	414	20	18.83	33.28	5.50	23.77	414	0.08
43	15.48	33.26	6.07	340	30	18.82	33.28	5.46	23.77	414	0.12
53	15.00	33.26	6.06	330	50	15.17	33.26	6.06	24.61	334	0.20
62	14.50	33.31	6.02	316	75	13.66	33.30	5.86	24.97	300	0.28
72	13.90	33.30	5.92	305	100	11.60	33.39	5.27	25.44	255	0.35
92	12.31	33.36	5.44	270	150	9.41	33.51	4.26	25.91	210	0.46
105	11.14	33.41	5.18	246	200	8.72	33.93	2.45	26.35	168	0.56
119	10.37	33.45	4.99	229	250	8.17	34.04	1.83	26.52	152	0.64
142	9.48	33.49	4.41	213	300	7.40	34.04	1.50	26.63	142	0.72
169	9.22	33.73	3.34	191	400	6.41	34.11	0.87	26.82	124	0.86
206	8.62	33.95	2.36	166	500	5.84	34.19	0.50	26.96	111	0.98
256	8.09	34.04	1.77	151							
334	6.92	34.04	1.31	136							
434	6.20	34.15	0.64	118							
573	5.40	34.23	0.33	103							
ORCA; September 11, 1958; 2025, 2048 GCT; 32°05.5'N, 120°36'W; sounding, 2000+ fm; wind, 320°, force 5; weather, clear; sea, very rough; wire angle, 35°, 45°.											90.70
0	18.86	33.25	5.62	417	0	18.86	33.25	5.62	23.74	417	0.00
8	18.82	33.28	5.67	414	10	18.82	33.28	5.66	23.77	414	0.04
24	18.82	33.24	5.65	417	20	18.82	33.25	5.65	23.75	416	0.08
36	18.28	33.30	5.74	399	30	18.81	33.24	5.65	23.75	416	0.12
44	16.44	33.30	6.36	358	50	15.46	33.28	6.17	24.57	338	0.20
53	15.30	33.28	6.15	334	75	14.42	33.25	6.14	24.77	318	0.28
62	14.87	33.28	6.16	326	100	13.10	33.35	5.72	25.11	286	0.36
79	14.24	33.24	6.14	316	150	9.56	33.57	4.90	25.92	209	0.48
90	13.56	33.24	6.12	302							
107	11.94	33.40	5.59	260							
129	10.33	33.48	5.15	227							
160	9.30	33.63	4.74	200							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
90.70	ORCA; September 15, 1958; 1120 GCT; 32°01.5'N, 120°30'W; sounding, 2100+ fm; wind, 300°, force 2; weather, clear; sea, rough; wire angle, 08°.										
0	18.66	33.36	5.62	404	0	18.66	33.36	5.62	23.87	404	0.00
10	18.64	33.42	5.30	399	10	18.64	33.42	5.30	23.92	399	0.04
30	18.71	33.35	5.42	406	20	18.68	33.37	5.40	23.87	404	0.08
39	18.38	33.36	5.45	397	30	18.71	33.35	5.42	23.85	406	0.12
49	15.86	33.33	5.83	342	50	15.80	33.33	5.85	24.53	342	0.20
59	15.20	33.31	5.96	330	75	14.44	33.32	5.85	24.82	313	0.28
68	14.72	33.31	5.89	320	100	13.58	33.40	5.69	25.06	291	0.36
82	14.15	33.35	5.85	306	150	9.20	33.55	4.42	25.95	205	0.48
97	13.69	33.39	5.72	294	200	8.41	33.87	3.18	26.34	169	0.57
110	11.77	33.45	5.24	253	250	7.86	33.96	2.42	26.50	154	0.65
132	9.88	33.51	4.95	218	300	7.32	34.03	1.85	26.64	141	0.73
159	9.13	33.64	4.37	196	400	6.45	34.12	0.98	26.83	123	0.87
191	8.57	33.84	3.35	173	500	5.75	34.13	0.95	26.92	114	0.99
235	8.01	33.94	2.64	158							
309	7.21	34.04	1.77	139							
401	6.44	34.12	0.97	123							
527	5.58	34.13	0.95	112							
93.27	ORCA; September 10, 1958; 0011, 0037 GCT;[a] 32°55'N, 117°21.5'W; sounding, 300 fm; wind, 300°, force 4; weather, clear; sea, moderate; wire angle, 15°, 18°.										
227	9.10	34.04	2.14	167							
238	8.80	34.07	2.05	160							
247	8.86	34.11	1.64	158							
256	8.80	34.14	1.64	155							
265	8.64	34.16	1.57	151							
274	8.70	34.20	1.38	149							
283	8.61	34.18	1.38	149							
293	8.45	34.18	1.40	146							
302	8.45	34.16	1.33	147							
312	8.36	34.21	1.29	143							
321	8.23	34.20	1.24	142							
330	8.18	34.21	1.21	140							
340	8.00	34.22	1.16	137							
350	7.95	34.21	1.22	137							
359	7.88	34.22	1.09	135							
368	7.84	-	1.13								
378	7.77	34.22	0.96	133							
93.27	ORCA; September 13, 1958; 1800, 1828 GCT; 32°55'N, 117°21.5'W; sounding, 228 fm;[b] wind, 180°, force 3; weather, clear; sea, moderate; wire angle, 05°, 05°.										
0	19.36	33.39	5.97	418	0	19.36	33.39	5.97	23.73	418	0.00
10	16.09	33.30	6.29	350	10	16.09	33.30	6.29	24.44	350	0.04
20	15.24	33.60r	6.24		20	15.24	33.33	6.24	24.65	330	0.07
30	14.54	33.59r	6.29		30	14.54	33.36	6.29	24.83	313	0.10
40	14.28	33.37	5.95	307	50	13.06	33.35	5.00	25.12	285	0.16
50	13.06	33.35	5.00	285	75	11.53	33.51	4.54	25.54	245	0.23
70	11.64	33.48	4.63	250	100	10.98	33.56	4.17	25.67	233	0.29
90	11.26	33.55	4.30	238	150	10.12	33.75	3.32	25.98	203	0.40
					200	9.55	33.96	2.43	26.24	179	0.50
69c)	11.78u	33.48u	4.42u		250	9.06	34.10	1.89	26.42	162	0.59
93	10.96u	-	4.30u		300	8.57	34.17	1.60	26.56	148	0.67
116	10.54	33.58	3.90	223							
139	10.23	33.69	3.50	210							
186	9.68	33.90	2.66	186							
236	9.24	34.07	1.96	166							
282	8.73	34.15	1.86	152							
315p	8.42	34.20	1.47	145							

a) Test cast.

b) Sounding varies from 228 to 195 fathoms.

c) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^{-5} cm/g	ΔD dyn. m

ORCA; September 17, 1958; 0000 GCT; 32°55'N, 117°21.5'W; sounding, 275 fm; wind, calm; weather, clear; sea, slight; wire angle, 11°. 9327

0	22.32	33.47	5.30	489	0	22.32	33.47	5.30	22.98	489	0.00
10	21.68	33.41	5.45	476	10	21.68	33.41	5.45	23.12	476	0.05
20	17.80	33.31	6.05	387	20	17.80	33.31	6.05	24.05	387	0.09
29	15.10	33.31	5.67	328	30	15.05	33.31	5.64	24.68	327	0.13
40	13.36	33.33	5.11	291	50	12.52	33.39	4.80	25.26	272	0.19
50	12.52	33.39	4.80	272	75	11.42	33.50	4.23	25.55	244	0.25
60	11.98	33.46	4.72	257	100	11.01	33.53	3.94	25.65	235	0.31
78	11.34	33.51	4.15	242	150	10.04	33.73	3.08	25.98	204	0.42
97	11.02	33.53	3.95	235	200	9.41	33.92	2.57	26.23	180	0.52
126	10.32	33.60	3.68	218	250	8.87	34.09	1.80	26.45	159	0.61
150	10.04	33.73	3.08	204	300	8.39	34.15	1.44	26.57	148	0.69
173	9.87	33.84	2.82	193	400	(7.25)	(34.20)	(1.02)	(26.78)	(128)	(0.83)
196	9.46	33.91	2.59	181							
243	8.94	34.07	1.88	162							
294	8.47	34.14	1.51	149							
341	7.83	34.19	1.08	136							
390	7.28	34.20	1.02	128							

ORCA; September 19, 1958; 1528 GCT; 32°55'N, 117°21.5'W; sounding, 272 fm; wind, 270°, force 1; weather, overcast; sea, slight; wire angle, 09°. 9327

0	20.90	33.44	5.84	453	0	20.90	33.44	5.84	23.36	453	0.00
10	-	33.24	6.19		10	20.10	33.24	6.19	23.42	447	0.04
20	15.86	33.29	6.25	346	20	15.86	33.29	6.25	24.48	346	0.08
29	13.90	33.22	6.18	310	30	13.85	33.22	6.15	24.86	310	0.12
39	13.28	33.30	5.68	292	50	12.55	33.26	5.27	25.16	282	0.18
49	12.60	33.26	5.34	283	75	11.10	33.46	4.39	25.58	242	0.24
58	12.09	33.40	4.70	263	100	10.63	33.55	3.92	25.73	227	0.30
78	10.99	33.47	4.32	239	150	10.10	33.78	3.03	26.01	201	0.41
97	10.66	33.55	3.95	227	200	9.57	33.92	2.29	26.20	183	0.51
125	10.39	33.68	3.31	213	250	8.80	34.05	1.78	26.43	161	0.60
149	10.12	33.78	3.03	201	300	8.38	34.17	1.27	26.58	146	0.68
170	10.04	33.88	2.38	193	400	(7.03)	(34.25)	(0.62)	(26.85)	(121)	(0.82)
195	9.64	33.91	2.34	184							
242	8.88	34.02	1.91	165							
294	8.47	34.16	1.36	148							
342	7.60	34.22	0.93	131							
392	7.12	34.25	0.66	123							

ORCA; September 13, 1958; 1505 GCT; 32°50'N, 117°31.5'W; sounding, 400+ fm; wind, 150°, force 2; weather, partly cloudy; sea, moderate; wire angle, 04°. 9330

0	21.72	33.53	-	468	0	21.72	33.53		23.20	468	0.00
10	21.32	33.53	5.60	457	10	21.32	33.53	5.60	23.32	457	0.05
30	14.98	33.48a)	6.35		20	18.28	33.44	5.97	24.03	389	0.09
40	14.24	33.34	6.05	308	30	14.98	33.36	6.35	24.74	322	0.12
51	13.38	33.39	5.54	288	50	13.46	33.39	5.58	25.08	290	0.18
61	12.40	33.42	4.93	268	75	11.42	33.49	4.34	25.54	245	0.25
71	11.60	33.48	4.57	249	100	10.83	33.63	3.73	25.76	225	0.31
85	11.10	33.50	4.00	238	150	10.40	33.78	2.95	25.96	206	0.42
100	10.83	33.63	3.73	225	200	10.10	33.98	2.24	26.16	187	0.52
114	10.66	33.74a)	3.55		250	9.00	34.02	2.34	26.37	166	0.61
138	10.45	33.75	3.14	209	300	8.19	34.06	2.17	26.53	152	0.69
167	10.27	33.86	2.61	198	400	7.48	34.24	1.06	26.78	128	0.84
200	10.10	33.98	2.24	187	500	6.73	34.29	0.53	26.92	114	0.96
247	9.07	34.02	2.36	167							
324	7.88	34.08	1.99	146							
420	7.40	34.27	0.85	125							
548	6.21	34.30	0.37	108							

a) Cracked bottle; value does not fall on property curve.

SIO

CCOFI 5809

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m

93.30 ORCA; September 16, 1958; 2120 GCT; 32°50.5'N, 117°31.5'W; sounding, 400 fm; wind, 300°, force 2; weather, clear; sea, slight; wire angle, 26°.

0	22.55	33.48	5.24	493	0	22.55	33.48	5.24	22.94	493	0.00
9	22.05	33.49	5.42	480	10	21.98	33.49	5.44	23.09	478	0.05
27	17.92	33.31	6.09	390	20	19.80	33.39	5.79	23.61	429	0.09
36	16.44	33.30	6.24	358	30	17.37	33.31	6.15	24.15	377	0.13
44	14.20	33.22	6.09	316	50	13.40	33.30	5.63	25.02	295	0.20
53	12.95	33.35	5.34	283	75	11.32	33.45	4.48	25.53	246	0.27
62	11.99	33.38	4.71	263	100	10.80	33.57	3.70	25.72	228	0.33
75	11.32	33.45	4.48	246	150	10.23	33.83	2.58	26.02	200	0.44
88	11.00	33.53	3.73	235	200	9.56	33.96	2.47	26.24	179	0.53
101	10.79	33.58	3.69	227	250	8.78	34.04	2.23	26.42	162	0.62
120	10.50	33.71	3.18	213	300	8.07	34.09	1.76	26.58	147	0.70
146	10.30	33.82	2.61	201	400	7.50	34.24	0.90	26.76	129	0.84
175	9.92	33.90	2.51	189	500	(6.58)	(34.28)	(0.48)	(26.94)	(113)	(0.97)
218	9.30	34.01	2.43	171							
287	8.19	34.07	1.91	150							
376	7.72	34.22	1.03	133							
497	6.60	34.28	0.50	113							

93.30 ORCA; September 19, 1958; 1300 GCT; 32°50'N, 117°31.5'W; sounding, 400 fm; wind, 320°, force 1; weather, overcast; sea, slight; wire angle, 06°.

0	21.71	33.47	5.45	472	0	21.71	33.47	5.45	23.16	472	0.00
11	21.42	33.47	5.48	465	10	21.60	33.47	5.46	23.19	469	0.05
30	13.79	33.17	6.13	312	20	18.90	33.36	5.70	23.82	409	0.09
40	12.38	33.28	5.43	277	30	13.79	33.17	6.13	24.84	312	0.13
49	12.10	33.33	5.18	269	50	12.08	33.34	5.14	25.30	268	0.18
59	11.82	33.46	4.62	254	75	11.42	33.49	4.20	25.54	246	0.25
69	11.65	33.48	4.28	250	100	10.68	33.56	3.55	25.73	227	0.31
83	11.06	33.51	4.12	237	150	10.35	33.79	2.68	25.97	204	0.42
98	10.70	33.56	3.70	227	200	9.89	34.03	2.15	26.23	179	0.52
113	10.61	33.65	3.25	219	250	9.37	34.14	1.73	26.41	163	0.60
135	10.42	33.73	2.96	210	300	8.72	34.16	1.57	26.52	152	0.68
163	10.25	33.84	2.55	199	400	7.40	34.19	1.11	26.74	131	0.83
196	9.95	34.00	2.19	181	500	6.58	34.25	0.60	26.91	115	0.96
243	9.44	34.14	1.78	164							
318	8.46	34.16	1.51	148							
413	7.21	34.20	1.00	128							
541	6.32	34.28	0.47	110							

93.40 ORCA; September 13, 1958; 0729 GCT; 32°31'N, 118°13'W; sounding, 900+ fm; wind, 270°, force 5; weather, clear; sea, very rough; wire angle, 18°.

0	19.72	33.31a)	5.59	433	0	19.72	33.31	5.59	23.57	433	0.00
10	19.71	-	5.57		10	19.71	33.31	5.57	23.58	432	0.04
28	16.56	-	6.10		20	19.10	33.30	5.67	23.72	419	0.08
43	15.30	33.27	6.22	335	30	16.40	33.28	6.14	24.35	358	0.12
57	14.08	33.20	6.14	316	50	14.73	33.23	6.22	24.70	326	0.19
65	13.45	33.17	6.03	305	75	12.55	33.28	5.64	25.17	280	0.27
75	12.55	33.28	5.64	280	100	10.41	33.38	4.80	25.64	236	0.34
93	10.72	33.33	5.09	244	150	9.15	33.75	3.12	26.13	189	0.44
110	10.04	33.49	4.36	222	200	8.60	33.97	2.46	26.40	164	0.53
123	9.74	33.62	3.92	207	250	8.04	34.05	1.94	26.55	150	0.61
144	9.34	33.70	3.28	195	300	7.46	34.12	1.48	26.68	137	0.68
178	8.79	33.91	2.72	171	400	6.80	34.22	0.85	26.86	120	0.82
212	8.46	34.00	2.26	160	500	6.22	34.27	0.48	26.96	110	0.94
265	7.82	34.07	1.72	145	600	(5.62)	(34.29)	(0.34)	(27.07)	(100)	(1.05)
345	7.11	34.18	1.16	128							
450	6.50	34.25	0.57	114							
592	5.70	34.29	0.34	102							

a) Salinity bottle numbers were not recorded on the data sheet. Since standard handling and titrating procedures were used, these salinity values are assumed to be in correct order.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

93.40

ORCA; September 16, 1958; 1325 GCT; 32°30'N, 118°13.5'W; sounding, 900 fm; wind, 290°, force 1; weather, clear; sea, slight; wire angle, 06°.

0	20.51	33.53	5.36	437	0	20.51	33.53	5.36	23.52	437	0.00
10	20.50	33.92r	5.20		10	20.50	33.53	5.20	23.52	437	0.04
30	20.20	33.52	5.48	430	20	20.37	33.53	5.32	23.56	434	0.09
40	15.56	33.15	6.19	349	30	20.20	33.52	5.48	23.60	430	0.13
51	14.64	33.19	6.20	328	50	14.78	33.19	6.20	24.64	331	0.21
60	13.96	33.19	6.16	314	75	12.66	33.20	5.60	25.08	289	0.28
70	13.04	33.19	5.76	296	100	10.64	33.33	4.85	25.56	244	0.35
84	11.98	33.24	5.32	273	150	9.12	33.81	3.24	26.19	184	0.46
98	10.70	33.31	4.88	246	200	8.81	33.99	2.44	26.38	166	0.55
112	9.87	33.48	4.44	220	250	7.97	34.05	1.87	26.56	149	0.63
136	9.24	33.80	3.53	186	300	7.45	34.14	1.32	26.69	136	0.70
164	9.06	33.83	3.13	181	400	6.84	34.21	0.78	26.84	122	0.84
196	8.87	34.16u	2.48		500	6.21	34.26	0.50	26.96	110	0.96
243	8.03	34.04	1.97	150							
319	7.30	34.15	1.14	132							
415	6.77	34.22	0.71	120							
543	5.93	34.28	0.40	105							

93.40

ORCA; September 19, 1958; 0608 GCT; 32°30.5'N, 118°11'W; sounding, 1000 fm; wind, calm; weather, cloudy; sea, moderate; wire angle, 03°.

0	20.78	33.45	5.36	450	0	20.78	33.45	5.36	23.40	450	0.00
10	20.75	33.48	5.40	447	10	20.75	33.48	5.40	23.42	447	0.04
30	20.20	33.51	5.53	430	20	20.66	33.49	5.42	23.45	444	0.09
40	16.10	33.27	6.16	352	30	20.20	33.51	5.53	23.60	430	0.13
50	15.47	33.28	6.18	339	50	15.47	33.28	6.18	24.56	339	0.21
60	14.18	33.17	6.18	320	75	13.80	33.15	6.06	24.82	314	0.29
69	14.10	33.16	6.14	319	100	11.62	33.22	5.27	25.30	268	0.37
84	12.88	33.12	5.92	298	150	9.52	33.62	3.70	25.98	204	0.48
98	11.74	33.22	5.32	270	200	8.59	33.94	2.44	26.37	166	0.58
112	10.48	33.33	4.89	241	250	8.05	34.03	2.18	26.52	152	0.66
135	9.78	33.47	4.28	219	300	7.64	34.10	1.66	26.64	141	0.74
163	9.26	33.80	3.05	186	400	6.79	34.21	0.85	26.84	122	0.87
196	8.62	33.93	2.47	168	500	6.25	34.25	0.62	26.95	112	0.99
244	8.10	34.02	2.21	154							
321	7.46	33.96u	1.41								
417	6.66	34.22	0.78	119							
545	6.06	34.26	0.56	108							

93.50

ORCA; September 12, 1958; 2210, 2303 GCT; 32°08'N, 118°55'W; sounding, 700 fm; wind, 300°, force 6; weather, partly cloudy; sea, high; wire angle, 30°, 35°.

0	19.92	33.46	5.43	427	0	19.92	33.46	5.43	23.63	427	0.00
8	19.87	33.53	5.49	421	10	19.86	33.53	5.50	23.69	421	0.04
31	16.72	33.37	6.30	359	20	19.84	33.53	5.51	23.70	420	0.08
					30	17.23	33.39	6.18	24.25	368	0.12
40	15.12	33.33	6.59	327	50	13.48	33.37	5.93	25.05	292	0.19
52	13.42	33.37	5.82	290	75	10.96	33.43	4.33	25.58	241	0.26
61	12.18	33.40	4.87	265	100	9.55	33.55	4.06	25.92	209	0.31
70	11.26	33.40	4.51	249	150	9.20	33.89	2.64	26.24	179	0.41
86	10.36	33.53	3.92	224	200	8.52	34.02	2.24	26.45	159	0.50
103	9.46	33.55	4.08	208	250	7.80	34.14	2.00	26.65	140	0.57
115	9.22	33.69	3.52	194	300	7.30	34.14	1.48	26.72	133	0.64
137	9.04	33.78	2.95	184	400	6.59	34.22	0.76	26.88	118	0.78
170	8.70	-	2.53		500	5.99	34.30	0.53	27.02	104	0.89
204	8.42	34.04	2.17	156							
254	7.74	34.14	1.96	139							
332	7.02	34.14	1.18	130							
435	6.36	34.27	0.65	111							
574	5.66	34.32	0.43	99							

SIO

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5809

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
93.50	ORCA; September 16, 1958; 0558 GCT; 32°10.5'N, 118°53'W; sounding, 750 fm; wind, 320°, force 2; weather, clear; sea, rough; wire angle, 06°.										
0	20.27	33.33	5.42	445	0	20.27	33.33	5.42	23.44	445	0.00
10	19.94	33.25	5.39	442	10	19.94	33.25	5.39	23.48	442	0.04
30	19.83	33.30	5.39	436	20	19.88	33.27	5.39	23.50	440	0.09
40	16.61	33.30	6.19	361	30	19.83	33.30	5.39	23.54	436	0.13
49	14.42	33.30	6.30	315	50	14.30	33.30	6.27	24.83	313	0.21
60	12.90	33.33	5.44	283	75	11.04	33.40	4.46	25.54	245	0.28
67	11.56	33.38	4.60	255	100	9.83	33.55	3.92	25.88	214	0.34
84	10.77	33.45	4.25	236	150	8.90	33.90	2.46	26.29	174	0.43
98	9.85	33.53	3.93	216	200	8.34	33.97	2.27	26.44	160	0.52
112	9.44	33.71	3.13	196	250	7.88	34.05	1.84	26.57	147	0.60
136	9.04	33.85	2.60	180	300	7.38	34.12	1.36	26.69	136	0.67
164	8.76	33.94	2.39	168	400	6.79	34.20	0.81	26.84	122	0.80
197	8.34	33.97	2.27	160	500	6.16	34.25	0.46	26.96	110	0.92
245	7.90	34.05	1.85	148							
322	7.21	34.14	1.21	132							
418	6.64	34.22	0.67	119							
547	5.81	34.26	0.36	105							
93.50	ORCA; September 18, 1958; 2255 GCT; 32°10.5'N, 118°54.5'W; sounding, 715 fm; wind, 300°, force 3; weather, cloudy; sea, rough; wire angle, 10°.										
0	20.48	33.48	5.38	440	0	20.48	33.48	5.38	23.49	440	0.00
10	20.45	33.41	5.22	444	10	20.45	33.41	5.22	23.45	444	0.04
29	19.58	33.44	5.43	420	20	20.43	33.41	5.23	23.45	444	0.09
43	15.08	33.24	5.93	333	30	19.57	33.44	5.44	23.71	419	0.13
53	14.64	33.23	5.93	325	50	14.82	33.23	5.93	24.68	327	0.21
63	13.68	33.20	6.07	307	75	12.96	33.30	5.48	25.10	287	0.28
72	13.20	33.28	5.67	292	100	11.02	33.44	4.38	25.58	242	0.35
92	11.82	33.38	4.74	260	150	9.08	33.78	3.04	26.17	185	0.46
106	10.40	33.48	4.19	228	200	8.60	34.01	2.02	26.43	161	0.54
119	9.54	33.55	4.08	209	250	7.89	34.06	1.78	26.58	147	0.62
142	9.19	33.73	3.29	190	300	7.26	34.09	1.55	26.68	137	0.70
171	8.87	33.91	2.57	173	400	6.70	34.15	1.00	26.82	124	0.83
208	8.46	34.03	1.93	158	500	6.20	34.26	0.53	26.97	110	0.96
260	7.78	34.07	1.76	144	600	(5.61)	(34.32)		(27.08)	(99)	(1.07)
339	6.87	34.10	1.31	130							
439	6.52	34.22	0.70	117							
581	5.76	34.31	0.37	101							
93.60	ORCA; September 12, 1958; 1305, 1400 GCT; 31°46'N, 119°35'W; sounding, 1400 fm; wind, 300°, force 5; weather, clear; sea, very rough; wire angle, 33°, 31°.										
0	19.62	33.44	5.46	421	0	19.62	33.44	5.46	23.70	421	0.00
8	19.60	33.47	5.62	418	10	19.60	33.47	5.63	23.72	418	0.04
25	18.76	33.43	5.82	401	20	19.60	33.47	5.63	23.72	418	0.08
38	14.88	33.28	6.31	326	30	16.28	33.33	6.14	24.42	352	0.12
51	14.11	33.30	6.06	309	50	14.20	33.30	6.09	24.85	311	0.19
58	13.38	33.35	5.44	291	75	11.93	33.33	5.02	25.32	266	0.26
67	12.62	33.36	5.16	276	100	10.32	33.54	4.10	25.79	222	0.32
83	11.24	33.30	4.86	256	150	8.93	33.88	2.76	26.28	175	0.42
98	10.38	33.53	4.11	224	200	8.42	34.00	2.28	26.44	160	0.51
110	9.93	33.58	4.07	213	250	7.98	34.10	1.77	26.60	145	0.59
126	9.43	33.71	3.47	196	300	7.59	34.15	1.36	26.68	137	0.66
155	8.86	33.89	2.69	174	400	6.80	34.22	0.95	26.85	121	0.79
185	8.62	33.95	2.48	166	500	6.05	34.26	0.57	26.98	108	0.91
230	8.12	34.08	1.95	149							
303	7.59	34.15	1.36	136							
429	6.59	34.23	0.83	117							
562	5.67	34.29	0.40	101							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

9360

ORCA; September 15, 1958; 2250 GCT; 31°49.5'N, 119°32'W; sounding, 1400 fm; wind, 290°, force 3; weather, clear; sea, rough; wire angle, 11°.

0	19.98	33.48	5.64	427	0	19.98	33.48	5.64	23.63	427	0.00
10	19.30	33.48	5.53	410	10	19.30	33.48	5.53	23.81	410	0.04
30	19.14	33.46	5.46	408	20	19.14	33.46	5.46	23.83	408	0.08
39	16.64	33.33	5.89	360	30	19.14	33.46	5.46	23.83	408	0.12
49	14.70	33.31	5.78	320	50	14.67	33.31	5.77	24.77	319	0.20
59	13.42	33.28	5.70	297	75	11.70	33.32	4.78	25.36	262	0.27
68	12.70	33.31	5.20	281	100	10.83	33.43	4.52	25.61	239	0.33
82	11.66	33.37	4.72	258	150	9.14	33.79	3.08	26.17	185	0.44
98	10.88	33.42	4.55	241	200	8.58	34.02	2.39	26.44	160	0.53
112	10.09	33.55	4.02	218	250	7.88	34.06	2.10	26.58	147	0.60
134	9.44	33.69	3.42	198	300	7.55	34.14	1.48	26.68	136	0.68
162	8.98	33.86	2.89	178	400	6.76	34.22	0.78	26.86	120	0.81
193	8.66	34.01	2.43	162	500	6.08	34.29	0.41	27.00	106	0.93
239	7.96	34.05	2.17	148							
313	7.42	34.16	1.34	134							
407	6.72	34.22	0.74	119							
532	5.91	34.31	0.36	103							

9360

ORCA; September 18, 1958; 1510 GCT; 31°52.5'N, 119°35'W; sounding, 1500 fm; wind, 320°, force 4; weather, cloudy; sea, very rough; wire angle, 25°.

0	19.44	33.48	5.48	414	0	19.44	33.48	5.48	23.76	414	0.00
9	19.44	33.44	5.41	416	10	19.41	33.44	5.42	23.74	416	0.04
27	19.13	33.46	5.52	408	20	19.18	33.46	5.50	23.81	410	0.08
41	15.34	33.24	6.18	338	30	19.12	33.46	5.53	23.84	407	0.12
51	13.32	33.30	5.49	294	50	13.41	33.29	5.52	25.01	296	0.19
59	12.50	33.35	4.94	274	75	11.27	33.38	4.57	25.49	250	0.26
69	11.80	33.35	4.73	262	100	9.95	33.60	3.73	25.89	212	0.32
86	10.38	33.50	4.16	226	150	8.98	33.80	3.00	26.21	182	0.42
99	9.97	33.60	3.74	212	200	8.32	33.97	2.42	26.44	160	0.51
112	9.60	33.68	3.48	201	250	7.82	34.06	1.83	26.58	146	0.58
134	9.17	33.75	3.19	189	300	7.38	34.12	1.40	26.70	136	0.66
160	8.83	33.84	2.90	177	400	6.76	34.21	0.80	26.85	121	0.79
195	8.36	33.96	2.47	161	500	6.32	34.26	0.51	26.96	101	0.91
244	7.86	34.05	1.85	147							
319	7.24	34.14	1.28	133							
415	6.63	34.22	0.70	118							
549	6.08	34.29	0.42	106							

9370

ORCA; September 12, 1958; 0340, 0435 GCT; 31°31'N, 120°14'W; sounding, 2000+ fm; wind, 320°, force 5; weather, clear; sea, very rough; wire angle, 35°, 38°.

0	19.23	33.17	5.68	432	0	19.23	33.17	5.68	23.58	432	0.00
8	19.20	33.21	5.51	427	10	19.18	33.21	5.51	23.63	427	0.04
28	19.06	33.18	5.52	426	20	19.08	33.19	5.52	23.63	427	0.08
37	17.42	33.40	6.07	372	30	19.02	33.18	5.53	23.64	426	0.13
					50	15.74	33.39	6.09	24.60	335	0.20
48	15.83	33.40	6.09	337	75	14.25	33.39	5.58	24.91	305	0.28
56	15.44	33.36	6.07	332	100	11.43	33.40	4.94	25.47	252	0.36
64	14.90	-	5.98		150	9.26	33.82	3.53	26.18	185	0.47
79	13.94	33.40	5.39	298	200	8.55	33.95	2.61	26.39	165	0.56
95	11.75	33.37	5.14	259	250	8.02	34.04	1.92	26.55	150	0.64
106	11.10	33.44	4.74	243	300	7.45	34.13	1.52	26.69	136	0.71
127	9.96	33.53	4.14	217	400	6.78	34.23	0.86	26.87	119	0.84
158	9.08	33.89	3.32	177	500	6.07	34.29	0.51	27.01	106	0.96
190	8.65	33.93	2.79	168							
237	8.14	34.02	2.02	153							
310	7.39	34.14	1.46	134							
409	6.72	34.24	0.85	118							
546	5.72	34.31	0.38	100							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m

93.70 ORCA; September 15, 1958; 1639 GCT; 31°30'N, 120°06'W; sounding, 2200 fm; wind, 300°, force 2; weather, clear; sea, rough; wire angle, 06°.

0	19.05	33.33	5.61	415	0	19.05	33.33	5.61	23.76	415	0.00
10	18.98	33.39	5.69	410	10	18.98	33.39	5.69	23.82	410	0.04
30	18.61	33.23	5.72	412	20	18.86	33.33	5.70	23.82	410	0.08
41	16.12	33.08	6.23	366	30	18.61	33.23	5.72	23.79	412	0.12
50	15.35	33.30	6.21	334	50	15.35	33.30	6.21	24.61	334	0.20
60	14.78	33.28	6.25	324	75	14.17	33.29	6.00	24.86	310	0.28
70	14.35	33.27	6.11	316	100	12.00	33.37	5.12	25.35	264	0.35
84	13.76	33.34	5.78	299	150	9.45	33.59	3.78	25.96	205	0.47
98	12.16	33.37	5.19	267	200	8.66	33.84	2.76	26.29	174	0.57
113	11.08	33.40	4.73	246	250	8.08	34.03	1.95	26.52	152	0.65
136	9.88	33.50	4.20	218	300	7.61	34.11	1.41	26.66	140	0.73
164	9.18	33.68	3.51	194	400	6.73	34.21	0.70	26.86	120	0.86
197	8.70	33.83	2.91	176	500	6.18	34.26	0.50	26.97	110	0.98
244	8.18	34.01	2.09	155							
320	7.41	34.14	1.28	135							
417	6.62	34.22	0.64	118							
544	5.96	34.28	0.43	106							

113.30 BLACK DOUGLAS; September 5, 1958; 0737 GCT; 29°22.5'N, 115°17.5'W; sounding, 30 fm; wind, 290°, force 4; weather, clear; sea, moderate; wire angle, 00°.

0	18.72	33.60	5.52	388	0	18.72	33.60	5.52	24.04	388	0.00
9	18.69	33.59	5.54	388	10	18.68	33.59	5.54	24.04	388	0.04
19	15.54	33.56	5.20	319	20	15.48	33.56	5.17	24.78	318	0.07
28	13.58	33.58	4.08	278							

113.35 BLACK DOUGLAS; September 5, 1958; 1100 GCT; 29°12'N, 115°39'W; sounding, 620 fm; wind, 310°, force 3; weather, clear; sea, moderate; wire angle, 00°.

0	19.20	33.55	6.03	403	0	19.20	33.55	6.03	23.88	403	0.00
9	19.23	33.54	6.00	404	10	19.22	33.54	6.00	23.87	404	0.04
28	14.97	33.46	5.20	314	20	16.40	33.49	5.46	24.51	343	0.08
37	14.02	33.50	5.03	293	30	14.86	33.46	5.18	24.84	312	0.11
47	12.92	33.46	5.00	274	50	12.76	33.51	4.84	25.31	268	0.17
56	12.57	33.62	4.34	256	75	12.15	33.86	2.89	25.69	231	0.23
65	12.46	33.71	3.57	247	100	11.76	33.87	1.62	25.78	223	0.29
79	12.02a)	33.87	2.72	229	150	11.38	33.94	1.60	25.91	210	0.40
92	11.90	33.87	1.79	225	200	10.44	34.12	1.70	26.21	182	0.50
105	11.66	33.87	1.61	221	250	10.48	34.41	1.02	26.43	161	0.59
127	11.44	33.86	1.65	218	300	9.71	34.42	0.66	26.57	148	0.67
154	11.33	33.96	1.56	208	400	7.60	34.21	1.12	26.73	132	0.81
185	10.36	34.10	1.96	188	500	6.79	34.26	0.53	26.89	117	0.94
230	10.64	34.40	1.14	165							
302	9.70	34.42	0.65	147							
393	7.65	34.21	1.13	133							
514	6.63	34.27	0.41	114							

a) Mean value of 11.96 and 12.08°C.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

BLACK DOUGLAS; September 5, 1958; 1415, 1443 GCT; 29°02'N, 115°58'W; sounding, 1000 fm; wind, 310°, force 4; weather, cloudy; sea, moderate; wire angle, 08°, 04°. 113.40

0	20.50	33.52	5.41	437	0	20.50	33.52	5.41	23.53	437	0.00
9	20.52	33.49	5.42	440	10	20.50	33.49	5.43	23.51	439	0.04
28	17.06	33.48	5.94	358	20	17.62	33.48	5.87	24.23	370	0.08
37	16.28	33.47	5.95	342	30	17.00	33.48	5.95	24.37	356	0.12
47	15.62a)	33.48	5.96	326	50	15.30	33.48	5.92	24.76	320	0.19
56	14.76	33.47	5.74	309	75	12.30	33.43	5.22	25.34	265	0.26
65	13.56	33.44	5.56	287	100	13.26	34.14	2.60	25.68	231	0.32
79	12.30	33.47	5.06	262	150	11.68	34.26	1.24	26.10	192	0.43
93	13.36	34.02	4.49	241	200	11.59	34.48	0.85	26.28	175	0.52
106	13.19	34.16	2.17	228	250	10.35	34.41	0.87	26.45	159	0.61
128	11.48	34.06	2.23	204	300	10.04	34.44	0.87	26.53	151	0.69
154	11.72	34.30	1.01	190	400	8.28	34.42	0.72	26.80	126	0.83
184	12.15	34.52	0.81	182	500	7.17	34.33	0.75	26.89	117	0.96
231	10.50	34.39	0.87	163							
307	9.98	34.45	0.87	150							
397	8.38	34.42	0.71	127							
516	7.00	34.32	0.75	116							

BLACK DOUGLAS; September 6, 1958; 0239 GCT; 29°11'N, 114°55'W; sounding, 40 fm; wind, 290°, force 3; weather, partly cloudy; sea, moderate; wire angle, 02°. 115.27

0	20.10	33.60	5.58	422	0	20.10	33.60	5.58	23.69	422	0.00
10	19.67	33.56	5.65	413	10	19.67	33.56	5.65	23.78	413	0.04
19	16.71	33.56	5.74	344	20	16.60	33.56	5.73	24.52	342	0.08
33	14.70	33.60	4.68	299	30	15.05	33.59	4.98	24.89	307	0.11
57	12.79	33.62	3.11	260	50	13.12	33.62	3.38	25.32	266	0.17

BLACK DOUGLAS; September 6, 1958; 0038 GCT; 29°05'N, 115°08'W; sounding, 52 fm; wind, 310°, force 4; weather, partly cloudy; sea, moderate; wire angle, 13°. 115.30

0	20.55	33.62	5.50	431	0	20.55	33.62	5.50	23.59	431	0.00
9	20.12	33.61	5.46	421	10	20.10	33.61	5.46	23.70	420	0.04
23	16.55	33.48	6.00	346	20	19.00	33.57	5.63	23.95	397	0.08
42	14.42	33.55	5.02	296	30	15.50	33.50	5.65	24.73	322	0.12
60	13.82	33.94	2.32	256	50	14.17	33.68	3.88	25.16	282	0.18
78	13.02	33.97	1.70	239	75	13.21	33.96	1.82	25.57	243	0.25

BLACK DOUGLAS; September 5, 1958; 2139 GCT; 28°55'N, 115°27.5'W; sounding, 600 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 06°. 115.35

0	21.20	33.60	5.39	450	0	21.20	33.60	5.39	23.39	450	0.00
9	21.06	33.60	5.37	446	10	21.06	33.60	5.37	23.43	446	0.04
28	19.85	33.58	5.61	417	20	20.74	33.60	5.44	23.52	438	0.09
38	17.20	33.64	5.03	350	30	19.50	33.59	5.56	23.84	407	0.13
47	15.98	33.79	4.37	311	50	15.60	33.74	4.44	24.89	307	0.20
57	14.70	33.60	4.64	299	75	13.12	33.66	3.95	25.36	263	0.27
66	13.44	33.53	4.63	279	100	11.58	33.78	2.98	25.74	226	0.34
80	12.97	33.73	3.54	255	150	11.39	34.18	1.51	26.09	193	0.44
93	11.94	33.78	2.94	233	200	10.66	34.30	1.37	26.31	172	0.54
107	11.36	33.80	3.01	221	250	9.83	34.27	1.45	26.44	160	0.62
130	11.72	34.07	1.82	207	300	9.77	34.42	0.70	26.56	148	0.70
156	11.28	34.20	1.47	191	400	7.48	34.22	0.91	26.75	130	0.85
187	10.99	34.33	1.34	175	500	6.64	34.25	0.56	26.90	116	0.98
232	9.89	34.22	1.50	166							
303	9.74	34.42	0.55	148							
394	7.59	34.22	0.92	131							
514	6.51	34.26	0.50	114							

a) Mean value of 15.56 and 15.67°C.

SIO

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
115.40	BLACK DOUGLAS; September 5, 1958; 1809 GCT; 28°45'N, 115°47'W; sounding, 620 fm; wind, 290°, force 4; weather, clear; sea, moderate; wire angle, 07°.										
0	21.00	33.54a)	5.29	449	0	21.00	33.54	5.29	23.40	449	0.00
10	20.90	33.53	5.45	447	10	20.90	33.53	5.45	23.42	447	0.04
28	17.69	33.52	5.95	370	20	19.30	33.52	5.73	23.84	407	0.09
37	16.18	33.50	5.56	337	30	17.52	33.52	5.93	24.28	365	0.13
47	15.14	33.51	5.33	314	50	14.86	33.52	5.20	24.87	309	0.19
56	14.35	33.53	4.87	297	75	12.22	33.64	4.44	25.51	248	0.26
66	12.82	33.63	4.47	260	100	11.84	33.90	2.41	25.79	222	0.32
80	11.97	33.64	4.42	243	150	11.38	34.22	1.19	26.12	190	0.43
94	11.80	33.83	2.94	226	200	10.90	34.40	1.07	26.34	169	0.52
107	11.86	33.94	2.25	219	250	10.08	34.39	0.95	26.49	155	0.60
129	11.71	34.13	1.71	203	300	9.37	34.37	1.03	26.59	146	0.68
156	11.29	34.26	1.14	186	400	8.68	34.42	0.64	26.73	132	0.82
187	11.14	34.39	1.14	173	500	7.07	34.31	0.58	26.88	118	0.96
231	10.40	34.40	0.92	160							
301	9.37	34.37	1.03	146							
392	8.79	34.42	0.66	133							
512	6.84	34.29	0.56	116							
117.26	BLACK DOUGLAS; September 6, 1958; 0539 GCT; 28°56'N, 114°41'W; sounding, 41 fm; wind, 280°, force 3; weather, clear; sea, moderate; wire angle, 05°.										
0	20.28	33.60	5.47	426	0	20.28	33.60	5.47	23.64	426	0.00
9	19.92	33.57	5.58	419	10	19.72	33.56	5.60	23.77	414	0.04
19	16.95	33.51	5.88	354	20	16.80	33.51	5.87	24.44	350	0.08
33	14.82	33.50	5.40	309	30	15.15	33.50	5.53	24.80	316	0.11
57	13.26	33.69	3.58	263	50	13.65	33.63	4.02	25.22	275	0.17
117.30	BLACK DOUGLAS; September 6, 1958; 0758 GCT; 28°48'N, 114°56.5'W; sounding, 55 fm; wind, 280°, force 3; weather, clear; sea, moderate; wire angle, 08°.										
0	20.06	33.57	5.44	423	0	20.06	33.57	5.44	23.67	423	0.00
9	19.96	33.53	5.61	423	10	19.94	33.53	5.61	23.68	422	0.04
23	15.65	33.55	5.73	322	20	16.35	33.54	5.72	24.57	337	0.08
42	13.86	33.58	4.91	283	30	14.92	33.56	5.55	24.90	306	0.11
61	13.04	33.79	3.06	252	50	13.40	33.68	3.84	25.31	267	0.17
80	12.86	33.90	2.65	241	75	12.93	33.88	2.74	25.56	243	0.23
117.35	BLACK DOUGLAS; September 6, 1958; 1136 GCT; 28°38'N, 115°16'W; sounding, 104 fm; wind, 280°, force 7; weather, cloudy; sea, moderate; wire angle, 02°.										
0	20.78	33.62	5.33	438	0	20.78	33.62	5.33	23.52	438	0.00
9	20.70	33.58	5.44	438	10	20.70	33.58	5.44	23.52	438	0.04
19	19.64	33.58	5.55	412	20	19.53	33.58	5.60	23.82	409	0.09
28	18.78	33.58	5.88	391	30	18.60	33.57	5.88	24.05	387	0.13
41	15.74	33.43	5.81	333	50	14.50	33.42	5.77	24.88	308	0.20
65	13.92	33.53	5.11	288	75	13.08	33.53	4.80	25.26	272	0.27
88	12.78	33.60	4.52	261	100	12.92	33.87	3.48	25.54	245	0.33
124	13.20	34.12	1.82	231	150	12.01	34.07	1.64	25.88	213	0.45
160	11.76	34.07	1.60	208							

a) Salinity bottle numbers appear to have been listed out of order on the original data sheet; present order assumed to be correct, but these salinity data must be considered doubtful.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
BLACK DOUGLAS; September 6, 1958; 1440 GCT; 28°28'N, 115°35.5'W; sounding, 400 fm; wind, 310°, force 3; weather, clear; sea, moderate; wire angle, 00°.											117.40
0	21.55	33.73	5.16	450	0	21.55	33.73	5.16	23.39	450	0.00
9	21.58	33.71	5.35	452	10	21.20	33.69	5.40	23.47	443	0.04
28	17.30	33.55	5.76	358	20	20.00	33.65	5.52	23.75	416	0.09
37	16.20	33.55	5.59	334	30	16.50	33.51	5.75	24.49	345	0.13
47	15.45	33.67	4.98	309	50	15.30	33.67	4.90	24.90	306	0.19
56	14.96	33.68	4.59	298	75	12.48	33.62	4.21	25.44	254	0.26
65	13.64	33.64	4.20	275	100	13.17	34.25	1.67	25.80	221	0.32
78	12.26	33.62	4.22	250	150	11.54	34.06		25.96	205	0.43
91	13.42	34.27	2.19	224	200	11.07	34.32	1.48	26.25	178	0.53
105	13.00	34.23	1.52	219	250	10.58	34.36	1.04	26.37	167	0.62
127	11.66	33.96	2.51	214	300	9.80	34.39	0.78	26.53	152	0.70
154	11.32	34.05	2.26	202	400	8.32	34.35	0.48	26.74	132	0.84
186	11.18	34.31	1.74	180	500	6.80	34.29	0.36	26.91	115	0.98
230	10.85	34.34	1.18	172							
303	9.76	34.39	0.77	151							
395	8.40	34.35	0.48	133							
517	6.54	34.28	0.35	112							
BLACK DOUGLAS; September 7, 1958; 0236 GCT; 28°40.5'N, 114°25.5'W; sounding, 43 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 10°.											118.25
0	20.80	33.62	5.44	438	0	20.80	33.62	5.44	23.52	438	0.00
9	20.72	33.62	5.26	436	10	20.70	33.62	5.26	23.55	435	0.04
28	16.84	33.43	6.11	357	20	19.74	33.57	5.47	23.76	415	0.09
47	14.68	33.69	4.06	292	30	16.32	33.47	5.72	24.51	343	0.12
70	12.54	33.65	3.00	253	50	14.88	33.80	3.53	25.09	288	0.19
BLACK DOUGLAS; September 6, 1958; 2327 GCT; 28°30.5'N, 114°45.5'W; sounding, 59 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 22°.											118.30
0	22.59	33.68	5.13	481	0	22.59	33.68	5.13	23.07	481	0.00
8	22.55	33.69	5.02	479	10	22.52	33.69	5.03	23.10	478	0.05
26	22.07	33.71	5.22	465	20	22.26	33.71	5.15	23.18	470	0.10
44	18.26	33.64	5.42	374	30	21.90	33.71	5.23	23.28	460	0.14
66	15.60	33.94	3.29	293	50	16.98	33.66	5.05	24.52	343	0.22
88	14.89	34.08	1.90	267	75	15.30	34.00	2.68	25.16	282	0.30
BLACK DOUGLAS; September 6, 1958; 1932 GCT; 28°20.5'N, 115°05'W; sounding, 64 fm; wind, 320°, force 5; weather, partly cloudy; sea, slight; wire angle, 08°.											118.35
0	22.48	33.70	5.22	476	0	22.48	33.70	5.22	23.12	476	0.00
9	22.45	33.71	5.10	474	10	22.44	33.71	5.10	23.14	474	0.05
28	21.46	33.68	5.29	451	20	22.18	33.71	5.14	23.20	468	0.09
47	17.30	33.81	4.55	339	30	21.10	33.69	5.22	23.49	440	0.14
70	15.94	34.04	2.97	293	50	17.16	33.82	4.45	24.59	335	0.22
94	14.95	34.06	2.01	270	75	15.70	34.04	2.70	25.10	287	0.30
					100	(14.75)	(34.06)	(1.87)	(25.32)	(266)	(0.37)
BLACK DOUGLAS; September 6, 1958; 2124 GCT; 28°19'N, 114°53'W; sounding, 59 fm; wind, 320°, force 5; weather, partly cloudy; sea, moderate; wire angle, 07°.											119.33
0	22.62	33.75	5.24	476	0	22.62	33.75	5.24	23.12	476	0.00
9	22.58	33.71	5.06	478	10	22.56	33.71	5.06	23.10	478	0.05
28	22.36	33.69	5.09	474	20	22.45	33.70	5.08	23.12	476	0.10
47	22.16	33.71	5.08	466	30	22.34	33.69	5.09	23.15	473	0.14
71	18.44	33.57	5.40	384	50	20.50	33.58	5.40	23.56	434	0.23
94	13.82	33.62	3.35	280	75	17.92	33.58	5.19	24.21	372	0.33
BLACK DOUGLAS; September 7, 1958; 0524 GCT; 28°23'N, 114°14.5'W; sounding, 27 fm; wind, 300°, force 3; weather, clear; sea, moderate; wire angle, 02°.											120.25
0	21.60	33.69	5.35	454	0	21.60	33.69	5.35	23.35	454	0.00
9	21.50	33.63	5.38	455	10	21.48	33.63	5.38	23.34	455	0.04
28	17.46	33.59	5.53	359	20	20.20	33.62	5.44	23.68	423	0.09
38	16.58	33.67	4.96	334	30	17.15	33.60	5.42	24.43	351	0.13

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
120.30	BLACK DOUGLAS; September 7, 1958; 0915 GCT; 28°13'N, 114°34'W; sounding, 50 fm; wind, calm; weather, clear; sea, slight; wire angle, 00°.										
0	22.47	33.75	5.09	473	0	22.47	33.75	5.09	23.15	473	0.00
9	22.49	33.72	5.06	474	10	22.49	33.72	5.06	23.14	474	0.05
24	22.46	33.75	5.08	472	20	22.47	33.74	5.07	23.15	473	0.09
43	22.35	33.71	5.10	472	30	22.42	33.74	5.08	23.16	472	0.14
62	18.54	33.61	5.50	383	50	21.90	33.69	5.14	23.28	461	0.24
81	14.24	33.62	3.97	288	75	15.08	33.62	4.25	24.91	305	0.33
120.35	BLACK DOUGLAS; September 7, 1958; 1538 GCT; 28°03'N, 114°54'W; sounding, 47 fm; wind, 360°, force 2; weather, partly cloudy; sea, slight; wire angle, 00°.										
0	22.44	33.73	5.49	473	0	22.44	33.73	5.49	23.15	473	0.00
10	22.44	33.66	5.05	478	10	22.44	33.66	5.05	23.10	478	0.05
19	22.40	33.71	5.02	473	20	22.40	33.71	5.02	23.15	473	0.10
33	21.89	33.68	5.25	462	30	22.20	33.70	5.10	23.19	469	0.14
52	18.55	33.63	5.66	381	50	18.90	33.64	5.63	24.02	390	0.23
76	14.32	33.73	2.67	281	75	14.39	33.73	2.72	25.14	283	0.31
120.45	BLACK DOUGLAS; September 8, 1958; 0036 GCT; 27°43'N, 115°33'W; sounding, 1200 fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 21°.										
173a)	11.45	34.23	1.22	191							
217	10.95	34.38	0.83	171							
288	10.41	34.42	0.49	159							
378	8.95	34.37	0.53	140							
499	7.08	34.27	0.32	121							
					200	11.12	34.33	0.95	26.26	178	
					250	10.68	34.40	0.63	26.39	165	
					300	10.26	34.42	0.49	25.47	157	
					400	8.59	34.35	0.53	26.70	136	
					500	(7.07)	(34.27)	(0.31)	(26.86)	(120)	
130.30	BLACK DOUGLAS; September 9, 1958; 1722 GCT; 26°29'N, 113°29'W; sounding, 44 fm; wind, 270°, force 2; weather, partly cloudy; sea, rough; wire angle, 00°.										
0	25.94	34.19	4.81	539	0	25.94	34.19	4.81	22.46	539	0.00
10	25.51	34.16	4.87	528	10	25.51	34.16	4.87	22.57	528	0.05
19	21.56	33.82	5.47	443	20	21.00	33.80	5.54	23.60	430	0.10
33	18.80	33.96	5.74	364	30	18.72	33.83	5.70	24.22	371	0.14
57	17.85	34.28	3.49	318	50	18.97	34.28	3.80	24.50	344	0.21
130.35	BLACK DOUGLAS; September 9, 1958; 1440 GCT; 26°18.5'N, 113°48.5'W; sounding, 175 fm; wind, variable, force 1; weather, partly cloudy; sea, rough; wire angle, 07°.										
0	25.92	34.14	4.73	542	0	25.92	34.14	4.73	22.43	542	0.00
9	24.80	34.16	5.05	508	10	24.60	34.15	5.07	22.84	502	0.05
23	21.50	34.03	5.40	426	20	22.18	34.06	5.33	23.47	443	0.10
47	16.42	33.77	5.37	323	30	18.00	33.82	5.40	24.39	355	0.14
70	15.90	34.46	2.81	261	50	16.30	33.80	5.32	24.78	318	0.21
88	15.82	34.53	1.52	254	75	15.88	34.47	2.55	25.38	260	0.28
119	14.88	34.63	0.97	228	100	15.53	34.58	1.27	25.56	244	0.34
136	14.21	34.63	0.77	213	150	13.93	34.62	0.70	25.93	208	0.46
163	13.62	34.61	0.66	203	200	12.78	34.61	0.49	26.16	187	0.56
208	12.58	34.61	0.45	183	250	11.06	34.56	0.63	26.44	160	0.65
254	10.88	34.55	0.66	158							

a) Because of irregularities in cast, all data above 173 meters are too uncertain to be recorded.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10 cm/g	ΔD dyn. m
BLACK DOUGLAS; September 9, 1958; 1137 GCT; 26°09'N, 114°07'W; sounding, 1100 fm; wind, calm; weather, clear; sea, rough; wire angle, 00°.											13040
0	24.40	33.87	5.00	517	0	24.40	33.87	5.00	22.69	517	0.00
10	22.98	34.02	5.18	467	10	22.98	34.02	5.18	23.21	467	0.05
28	22.35	34.09	5.22	445	20	22.63	34.06	5.19	23.34	455	0.10
38	21.03	33.98	5.40	418	30	22.20	34.08	5.24	23.48	441	0.14
47	18.85	33.82	5.72	375	50	18.28	33.86	5.71	24.34	359	0.22
56	17.49	33.93	5.56	335	75	15.88	33.97	4.22	25.01	296	0.30
65	16.84	33.94	5.27	320	100	14.53	34.02	2.99	25.33	265	0.37
79	15.29	33.99	3.62	282	150	10.76	33.91	2.14	26.00	202	0.49
92	14.61	34.00	2.99	268	200	10.24	34.20	1.73	26.30	173	0.59
105	13.66	33.93	3.01	254	250	9.67	34.26	1.44	26.44	160	0.67
127	12.88	34.14	2.14	224	300	8.89	34.26	1.22	26.57	148	0.75
153	10.60	33.90	-	201	400	8.06	34.39	0.42	26.81	125	0.89
185	10.40	34.18	1.81	176	500	6.88	34.35	0.34	26.95	112	1.02
230	9.97	34.43u	1.51								
301	8.88	34.26	1.21	147							
392	8.17	34.39	0.43	126							
514	6.71	34.34	0.33	110							
BLACK DOUGLAS; September 9, 1958; 0828 GCT; 25°59'N, 114°26'W; sounding, 2000 fm; wind, calm; weather, clear; sea, rough; wire angle, 02°.											13045
0	24.30	33.91	4.98	511	0	24.30	33.91	4.98	22.75	511	0.00
9	23.34	33.90	5.08	485	10	23.26	33.89	5.08	23.04	483	0.05
28	22.37	33.82	5.05	464	20	22.78	33.85	5.06	23.15	473	0.10
38	20.80	33.72	5.52	431	30	22.00	33.79	5.14	23.32	457	0.14
47	19.36	33.73	5.68	393	50	18.91	33.73	5.70	24.09	383	0.23
57	18.08	33.73	5.76	364	75	14.88	33.46	5.88	24.84	312	0.32
66	16.87	33.55	5.88	349	100	14.32	34.07	2.00	25.42	257	0.39
80	15.26	33.62	5.47	309	150	12.67	34.40	0.94	26.02	200	0.50
93	15.16	33.95	3.46	282	200	12.43	34.64	0.28	26.25	178	0.60
106	14.24	34.30	1.75	238	250	11.60	34.64	0.22	26.41	163	0.69
129	13.29	34.37	1.15	214	300	10.92	34.61	0.22	26.50	154	0.77
155	12.64	34.44	0.87	197	400	9.03	34.46	0.30	26.71	134	0.92
186	12.68	34.63	0.40	184	500	7.66	34.39	0.31	26.86	120	1.05
231	11.85	34.65	0.23	167							
303	10.89	34.61	0.22	153							
394	9.13	34.47	0.29	135							
516	7.44	34.38	0.31	118							

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
90.28-O	IX-10	0727	33°28.5'	117°47.0'	230	300°	1	clear	moderate	18.28	33.42
90.28-O	14	0320	33°28.0'	117°46.0'	200	320°	1	clear	moderate	20.62	33.49
90.28-O	17	0750	33°28.5'	117°47.0'	200	calm		clear	smooth	18.86	33.37
90.55-O	11	0640	32°33.5'	119°37.5'	600+	320°	5	clear	very rough	19.14	33.55
90.55-O	15	0110	32°34.5'	119°33.0'	600	300°	3	clear	rough	18.92	33.48
90.55-O	18	0518	32°34.0'	119°38.0'	500	310°	4	partly cloudy	moderate	18.46	33.33
90.65-O	11	1700	32°10.5'	120°18.0'	2000+	320°	5	clear	very rough	18.60	33.22
90.65-O	15	0815	32°12.5'	120°12.0'	2000	300°	3	clear	very rough	18.96	33.47
93.35-O	13	1115	32°40.0'	117°52.0'	300	270°	2	partly cloudy	moderate	21.56	33.55
93.35-O	16	1718	32°39.5'	117°52.5'	300	310°	3	clear	slight	20.66	33.46
93.35-O	19	0950	32°39.5'	117°52.0'	350	320°	1	overcast	slight	21.30	33.53
93.45-O	13	0330	32°20.5'	118°32.0'	500	300°	6	clear	very rough	19.76	33.42
93.45-O	16	0930	32°20.5'	118°33.0'	425	300°	2	clear	rough	20.43	33.55
93.45-O	19	0230	32°21.0'	118°32.0'	600	300°	3	cloudy	rough	21.09	33.58
93.55-O	12	1810	31°58.0'	119°13.0'	800	300°	6	partly cloudy	very rough	19.60	33.46
93.55-O	16	0220	31°59.5'	119°12.5'	760	290°	3	clear	rough	19.97	33.30
93.55-O	18	1905	32°02.5'	119°13.5'	750	320°	4	overcast	very rough	20.05	33.34
93.65-O	12	0910	31°38.0'	119°55.0'	2000+	320°	5	partly cloudy	very rough	19.06	33.48
93.65-O	15	1922	31°38.5'	119°52.0'	2100	320°	2	clear	rough	18.76	33.42

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
110.33-B	IX-5	0210	29°50.5'	115°52.0'	50	310°	3	partly cloudy	moderate	-	-
110.35-B	5	0045	29°46.5'	116°00.0'	740	310°	3	partly cloudy	moderate	19.60	33.40
110.40-B	4	2203	29°36.5'	116°19.5'	1200	290°	4	cloudy	moderate	21.70	33.73
$118^{3}.36$-B	6	1830	28°20.0'	115°11.0'	30	170°	1	partly cloudy	slight	21.34	33.75
$120^{7}.26^{5}$-B	7	0650	28°12.5'	114°15.5'	21	280°	3	clear	moderate	21.78	33.66
$120^{5}.31$-B	7	1018	28°06.0'	114°33.0'	42	calm		clear	slight	22.51	33.70
$120^{5}.37^{5}$-B	7	1729	27°53.0'	115°01.0'	20	100°	1	partly cloudy	slight	20.26	33.97
120.40-B	7	1915	27°56.5'	115°14.0'	21	300°	1	cloudy	slight	20.90	33.64
$121^{3}.30^{5}$-B	7	1145	27°58.5'	114°26.5'	20	calm		clear	slight	21.06	33.58
$121^{2}.34$-B	7	1335	27°53.0'	114°43.0'	23	320°	1	clear	slight	21.76	33.66
123.37-B	8	1410	27°24.0'	114°39.5'	40	calm		partly cloudy	moderate	21.48	33.78
123.42-B	8	1052	27°13.0'	115°01.0'	1500	calm		clear	moderate	22.83	34.00
123.45-B	8	0613	27°05.0'	115°15.5'	2200	320°	1	partly cloudy	moderate	-	-
127.34-B	8	2000	26°55.5'	114°06.0'	45	calm		cloudy	moderate	22.20	34.14
127.40-B	8	2309	26°43.5'	114°29.5'	1500	220°	1	cloudy	very rough	23.56	33.84
127.45-B	9	0220	26°33.0'	114°48.5'	1800	calm		partly cloudy	moderate	23.75	33.90
133.25-B	10	0125	26°04.5'	112°48.0'	45	270°	1	cloudy	rough	26.70	34.34
133.30-B	9	2245	25°54.5'	113°07.5'	100	320°	1	partly cloudy	rough	24.92	34.03
137.23-B	10	0620	25°34.0'	112°18.5'	42	300°	1	clear	moderate	27.17	34.36
137.30-B	10	0953	25°20.0'	112°45.5'	150	300°	1	clear	rough	26.04	34.37

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
60.55	STRANGER; November 1, 1958; 1328 GCT; 37°47.5'N, 123°15'W; sounding, 34 fm; wind, 300°, force 2; weather, overcast; sea, slight; wire angle, 03°.										
3	14.24	33.33	6.11	309	0	(14.24)	(33.33)	(6.11)	(24.87)	(309)	(0.00)
13	13.62	33.35	5.92	296	10	13.82	33.35	5.97	24.97	300	0.03
32	11.16	33.48	4.15	241	20	12.20	33.42	5.12	25.34	264	0.06
51	11.14	33.52	3.71	238	30	11.18	33.47	4.20	25.57	242	0.08
					50	11.14	33.52	3.72	25.62	238	0.13
60.60	STRANGER; November 2, 1958; 2259 GCT; 37°37'N, 123°37'W; sounding, 1800 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 12°.										
4	15.03	33.33	5.77	325	0	15.0	(33.33)	(5.77)	(24.71)	(324)	(0.00)
13	15.11	33.32	5.90	328	10	15.09	33.32	5.88	24.68	327	0.03
41	12.46	33.42	4.59	269	20	15.06	33.32	5.90	24.69	326	0.06
55	11.60	33.51	4.02	246	30	14.94	33.32	5.85	24.71	324	0.10
68	10.79	33.55	3.89	230	50	11.90	33.48	4.21	25.46	254	0.16
86	10.01	33.58	3.92	215	75	10.43	33.56	3.91	25.77	223	0.22
113	9.38	33.69	3.52	196	100	9.80	33.66	3.86	25.96	205	0.27
143	8.92	33.86	2.87	177	150	8.82	33.89	2.77	26.30	174	0.36
164	8.66	33.94	2.62	167	200	8.28	34.03	2.40	26.49	155	0.45
187	8.38	34.00	2.57	158	250	8.01	34.12	1.74	26.60	144	0.52
222	8.22	34.05	2.08	152	300	7.55	34.19	1.32	26.72	133	0.60
261	7.92	34.14	1.57	141	400	6.58	34.23	0.85	26.90	117	0.73
302	7.53	34.19	1.30	133	500	5.80	34.25	0.63	27.00	106	0.84
346	7.07	34.21	1.14	125	600	5.27	34.32	0.42	27.10	96	0.95
392	6.60	34.22	0.87	118	700	4.80	34.35	0.39	27.20	87	1.04
437	6.36	34.25	0.70	112	800	4.44	34.40	0.42	27.28	80	1.13
491	5.84	34.25	0.65	106	1000	(3.67)	(34.49)	(0.35)	(27.44)	(65)	(1.29)
556	5.55	34.29	0.45	100							
648	4.98	34.34	0.40	90							
744	4.66	34.37	0.38	84							
836	4.30	34.42	0.46	77							
951	3.88	34.51	0.54	66							
996	3.69	34.49	0.46	66							
60.70	STRANGER; November 3, 1958; 0433 GCT; 37°16.5'N, 124°22'W; sounding, 2160 fm; wind, 320°, force 5; weather, partly cloudy; sea, very rough; wire angle, 15°.										
0	15.02	33.29	6.02	328	0	15.02	33.29	6.02	24.67	328	0.00
11	15.02	33.33	5.98	325	10	15.02	33.32	6.00	24.70	326	0.03
38	13.76	33.29	5.74	303	20	14.60	33.32	5.85	24.78	318	0.06
57	10.86	33.33	4.90	247	30	14.10	33.30	5.79	24.87	309	0.10
70	10.01	33.42	4.34	226	50	11.40	33.32	5.10	25.41	257	0.15
92a)	9.40	33.58	3.86	205	75	9.82	33.46	4.20	25.80	220	0.21
119	8.98	33.83	3.04	180	100	9.23	33.66	3.67	26.05	197	0.27
149	8.59	33.95	2.60	165	150	8.58	33.96	2.59	26.39	164	0.36
176	8.36	34.02	2.36	157	200	8.16	34.08	1.94	26.56	149	0.44
197	8.18	34.07	1.95	150	250	7.54	34.16	1.61	26.70	136	0.51
231	7.78	34.14	1.82	140	300	7.07	34.19	1.14	26.79	127	0.58
276	7.30	34.17	1.28	131	400	6.48	34.25	0.72	26.92	114	0.70
317	6.93	34.20	1.02	124	500	5.81	34.25	0.56	27.00	106	0.82
370	6.63	34.25	0.78	116	600	5.27	34.31	0.44	27.12	95	0.92
416	6.40	34.25	0.69	113	700	4.74	34.37	0.35	27.24	84	1.02
470	6.12	34.25	0.57	110	800	4.32	34.39	0.35	27.29	79	1.11
521	5.62	34.25	0.55	104	1000	3.76	34.48	0.49	27.42	67	1.26
593	5.30	34.31	0.45	96							
695	4.76	34.37	0.36	85							
795	4.33	34.39	0.34	79							
896	4.04	34.43	0.40	74							
1016	3.72	34.48	0.50	67							
1061	3.56	34.52	0.56	62							

a) The bathythermograph recorded a lower temperature (about 0.4°C) at this level.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m

60.80

STRANGER; November 3, 1958; 0936 GCT; 36°57.5'N, 125°05'W; sounding, 2240 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 12°.

0	16.48	33.06	5.39	376	0	16.48	33.06	5.39	24.17	376	0.00
11	16.48	33.10	5.31	373	10	16.48	33.10	5.32	24.20	373	0.04
40	15.57	33.04	5.62	358	20	16.47	33.10	5.31	24.20	372	0.07
58	12.50	33.04	5.71	297	30	16.45	33.10	5.32	24.21	372	0.11
72	11.32	33.08	5.36	273	50	13.60	33.03	5.69	24.78	318	0.18
95	9.78	33.32	4.66	230	75	11.02	33.11	5.25	25.32	266	0.25
123	8.80	33.53	4.54	200	100	9.58	33.36	4.63	25.76	224	0.32
153	8.39	33.75	3.76	173	150	8.40	33.72	3.82	26.22	180	0.42
180	8.16	33.87	3.42	165	200	7.95	33.92	3.13	26.46	158	0.50
203	7.92	33.93	3.11	157	250	7.08	33.98	2.47	26.62	142	0.58
238	7.30	33.98	2.56	145	300	6.41	33.99	2.12	26.72	133	0.65
284	6.59	33.98	2.29	136	400	6.02	34.15	0.93	26.90	116	0.78
325	6.27	34.02	1.78	129	500	5.50	34.19	0.70	26.99	108	0.90
380	6.13	34.14	1.03	118	600	4.82	34.23	0.43	27.10	96	1.01
426	5.88	34.16	0.82	114	700	4.60	34.36	0.35	27.23	85	1.10
481	5.68	34.20	0.58	108	800	4.28	34.36	0.33	27.26	82	1.19
531	5.05	34.14	0.96	106	1000	3.68	34.44	0.46	27.40	69	1.36
606	4.80	34.25	0.40	95							
707	4.58	34.36	0.34	84							
808	4.26	34.36	0.33	81							
909	3.98	34.40	0.41	75							
1028	3.60	34.44	0.49	68							
1074	3.55	34.47	0.55	66							

60.90

STRANGER; November 3, 1958; 1449 GCT; 36°38.5'N, 125°49'W; sounding, 2400 fm; wind, 330°, force 4; weather, cloudy; sea, very rough; wire angle, 05°.

0	16.99	32.99	5.45	392	0	16.99	32.99	5.45	24.00	392	0.00
12	16.99	33.01	4.90u	390	10	16.99	33.01		24.01	391	0.04
40	16.31	33.12	5.50	368	20	16.95	33.04		24.06	386	0.08
74	12.78	33.12	5.28	296	30	16.70	33.08		24.13	379	0.12
87	11.00	33.19	5.14	260	50	15.30	33.12	5.46	24.48	346	0.19
96	10.38	33.33	4.86	239	75	12.68	33.12	5.27	25.02	295	0.27
124	8.89	33.51	4.70	202	100	10.12	33.36	4.82	25.68	232	0.34
155	8.58	33.80	4.39	176	150	8.55	33.74	4.50	26.22	180	0.44
182	8.18	33.89	3.72	164	200	7.98	33.94	3.55	26.47	157	0.52
205	7.91	33.95	3.50	155	250	7.27	33.96	3.24	26.58	146	0.60
241	7.38	33.96	3.31	148	300	6.55	33.98	2.50	26.70	136	0.68
287	6.69	33.96	2.70	138	400	5.74	34.06	1.30	26.88	118	0.81
329	6.22	34.04	2.04	127	500	5.16	34.20	0.68	27.05	102	0.92
387	5.83	34.07	1.34	120	600	4.86	34.30	0.42	27.16	92	1.03
433	5.26	34.05	1.16	115	700	4.56	34.36	0.32	27.24	84	1.12
490	5.17	34.14	0.78	107	800	4.25	34.42	0.27	27.32	76	1.21
542	5.13	34.22	0.49	100	1000	3.68	34.48	0.50	27.42	67	1.36
617	4.78	34.31	0.37	90							
720	4.50	34.37	0.30	82							
825	4.17	34.44	0.27	74							
928	3.88	34.46	0.44	70							
1051	3.54	34.49a)	0.56	64							
1098	3.44	34.51a)	0.59	62							

a) Salinity bottle numbers appear to be recorded in reverse order on the data sheet. Since standard handling and titrating procedures were used, these salinity values are assumed to be listed in correct order.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

60.100 STRANGER; November 3, 1958; 2018 GCT; 36°18.5'N, 126°32.5'W; sounding, 2520 fm; wind, 340°, force 1; weather, partly cloudy; sea, rough; wire angle, 07°.

3	17.81	33.04	5.50	407	0	(17.81)	(33.04)	(5.50)	(23.84)	(407)	(0.00)
12	17.78	33.10	5.41	402	10	17.79	33.09	5.43	23.88	403	0.04
40	16.97	33.04	5.48	388	20	18.00	33.19a)	5.41	23.91	400	0.08
69	14.42	33.04	6.06	334	30	18.00	33.20a)	5.46	23.92	400	0.12
78	12.14	33.01	6.08	293	50	16.44	33.04	5.57	24.16	377	0.20
88	11.66	32.95	6.09	289	75	12.92	33.03	6.08	24.90	306	0.28
114	10.55	33.11	5.17	258	100	10.92	32.98	5.83	25.24	274	0.36
146	9.12	33.42	4.77	212	150	8.97	33.47	4.74	25.96	206	0.48
167	8.50	33.62	4.55	189	200	8.35	33.88	4.26	26.36	167	0.58
191	8.42	33.85	4.41	170	250	7.48	33.94	3.69	26.54	150	0.66
226	7.82	33.92	3.73	156	300	6.68	33.94	3.17	26.65	140	0.73
267	7.24	33.95	3.65	146	400	5.60	33.98	2.03	26.82	124	0.87
308	6.58	33.94	2.99	138	500	5.24	34.14	0.93	26.98	108	0.99
354	6.15	33.97	2.38	131	600	4.91	34.26	0.52	27.12	96	1.10
399	5.61	33.98	2.04	124	700	4.44	34.28	0.45	27.19	89	1.20
445	5.31	34.03	1.41	117	800	4.04	34.29	0.44	27.24	84	1.29
500	5.24	34.14	0.93	108	1000	3.58	34.47	0.54	27.42	67	1.46
566	5.04	34.20	0.57	101							
658	4.66	34.28	0.46	91							
756	4.15	34.28	0.44	86							
848	3.96	34.36	0.44	78							
964	3.70	34.46	0.56	68							
1011	3.56	34.47	0.53	66							

63.52 STRANGER; November 1, 1958; 0555 GCT; 37°22.5'N, 122°38'W; sounding, 40 fm; wind, 090°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.

0	14.64	33.40	5.81	312	0	14.64	33.40	5.81	24.84	312	0.00
12	14.50	33.43	5.80	307	10	14.53	33.43	5.80	24.88	308	0.03
31	13.68	33.43	5.26	291	20	14.26	33.43	5.71	24.95	302	0.06
50	12.41	33.47	4.32	264	30	13.71	33.43	5.27	25.06	291	0.09
64	11.90	33.53	4.14	250	50	12.41	33.47	4.32	25.34	264	0.15

63.60 STRANGER; October 31, 1958; 2346 GCT; 37°02.5'N, 123°12'W; sounding, 1330 fm; wind, 150°, force 2; weather, cloudy; sea, rough; wire angle, 03°.

3	15.46	33.23	5.87	341	0	(15.46)	(33.23)	(5.87)	(24.53)	(341)	(0.00)
12	15.38	33.24	5.83	339	10	15.40	33.24	5.85	24.55	340	0.03
41	12.34	33.25	5.33	279	20	15.35	33.24	5.82	24.56	338	0.07
55	10.82	33.22	5.02	254	30	15.32	33.24	5.81	24.57	337	0.10
69	9.72	33.38	4.70	225	50	11.30	33.23	5.13	25.37	262	0.16
89	9.08	33.45	4.56	210	75	9.47	33.41	4.64	25.82	219	0.22
116	8.56	33.66	4.09	186	100	8.86	33.52	4.41	26.00	202	0.28
147	8.26	33.85	3.59	168	150	8.20	33.87	3.54	26.38	165	0.37
169	7.90	33.96	3.37	154	200	7.65	34.04	2.43	26.60	145	0.44
192	7.79	34.04	2.48	147	250	6.92	34.07	2.15	26.72	133	0.52
228	7.20	34.04	2.32	139	300	6.53	34.09	1.70	26.79	127	0.58
270	6.73	34.09	1.98	129	400	5.91	34.18	0.75	26.94	113	0.71
311	6.44	34.09	1.62	126	500	5.34	34.24	0.56	27.06	101	0.82
358	5.94	34.09	1.33	119	600	4.94	34.31	0.44	27.16	92	0.92
405	5.90	34.18	0.74	112	700	4.60	34.36	0.41	27.24	84	1.01
451	5.62	34.21	0.71	107	800	4.34	34.42	0.43	27.31	77	1.10
508	5.29	34.25	0.54	100	1000	3.73	34.48	0.53	27.43	66	1.26
574	5.04	34.29	0.45	94							
668	4.68	34.34	0.42	87							
766	4.44	34.40	0.40	80							
860	4.15	34.44	0.48	74							
979	3.81	34.47	0.51	68							
1025	3.64	34.49	0.54	65							

a) Bathythermograph feature is reflected in salinity curve.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

63.70

STRANGER; October 31, 1958; 1745 GCT; 36°38'N, 123°56'W; sounding, 2080 fm; wind, 140°, force 4; weather, cloudy; sea, very rough; wire angle, 11°.

0	15.12	33.24	5.87	333	0	15.12	33.24	5.87	24.62	333	0.00
12	15.12	33.26	5.90	332	10	15.12	33.25	5.89	24.62	333	0.03
40	12.62	33.25	5.26	284	20	15.12	33.26	5.90	24.63	332	0.07
58	10.36	33.39	4.33	234	30	14.95	33.26	5.87	24.66	329	0.10
73	9.68	33.43	4.37	220	50	11.07	33.34	4.60	25.49	250	0.16
95	8.94	33.57	4.39	199	75	9.62	33.44	4.37	25.82	219	0.22
122	8.62	33.73	3.58	182	100	8.82	33.61	4.34	26.08	194	0.27
150	8.31	33.87	3.22	167	150	8.31	33.87	3.22	26.37	167	0.36
178	8.02	33.97	2.64	156	200	7.81	34.03	2.28	26.57	148	0.44
196	7.88	34.03	2.32	149	250	7.21	34.06	1.99	26.67	138	0.51
234	7.38	34.05	2.11	141	300	6.87	34.13	1.50	26.78	128	0.58
279	6.96	34.07	1.73	134	400	6.25	34.19	0.86	26.90	116	0.71
321	6.79	34.16	1.23	125	500	5.69	34.27	0.54	27.04	103	0.82
373	6.47	34.18	0.92	120	600	5.16	34.33	0.52	27.15	92	0.92
419	6.06	34.20	0.81	113	700	4.69	34.36	0.46	27.23	85	1.02
474	5.86	34.25	0.63	107	800	4.34	34.42	0.52	27.31	77	1.11
524	5.51	34.30	0.50	99	1000	3.73	34.45	0.54	27.40	68	1.27
597	5.17	34.33	0.52	92							
697	4.70	34.36	0.46	85							
797	4.35	34.42	0.52	77							
897	4.04	34.43	0.49	73							
1015	3.68	34.46	0.57	68							
1061	3.55	34.52	0.80	62							

63.80

STRANGER; October 31, 1958; 1202 GCT; 36°19'N, 124°36.5'W; sounding, 2160 fm; wind, 180°, force 5; weather, cloudy; sea, rough; wire angle, 10°.

0	16.62	33.15	5.44	372	0	16.62	33.15	5.44	24.21	372	0.00
11	16.63	33.17	5.53	371	10	16.63	33.16	5.52	24.22	372	0.04
40	16.28	33.10	5.60	369	20	16.63	33.17	5.53	24.22	371	0.07
54	13.84	33.12	5.89	306	30	16.63	33.17	5.53	24.22	371	0.11
68	12.67	33.10	5.72	296	50	14.70	33.12	5.81	24.62	333	0.18
86	11.89	33.13	5.62	279	75	12.50	33.13	5.67	25.06	291	0.26
113	9.60	33.42	4.60	220	100	11.07	33.30	5.04	25.46	253	0.33
144	8.71	33.73	3.50	183	150	8.60	33.78	3.36	26.24	178	0.44
167	8.40	33.87	3.09	169	200	8.10	34.00	2.47	26.50	154	0.52
189	8.26	33.97	2.59	159	250	7.40	34.08	2.04	26.66	139	0.60
223	7.70	34.06	2.32	144	300	6.75	34.13	1.66	26.79	127	0.66
265	7.26	34.09	1.90	136	400	6.13	34.22	0.76	26.95	112	0.79
307	6.66	34.14	1.61	125	500	5.65	34.25	0.47	27.03	104	0.90
353	6.45	34.18	1.08	119	600	5.12	34.29	0.38	27.12	95	1.01
399	6.14	34.22	0.77	112	700	4.68	34.35	0.36	27.22	86	1.10
445	5.89	34.22	0.49	109	800	4.37	34.40	0.40	27.30	78	1.19
501	5.64	34.25	0.47	104	1000	3.82	34.45	0.55	27.39	70	1.36
566	5.30	34.27	0.41	98							
660	4.83	34.33	0.34	89							
759	4.48	34.38	0.38	82							
853	4.22	34.42	0.42	76							
969	3.88	34.44	0.51	71							
1016	3.78	34.47	0.58	68							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_{-5}^{3}	Z	T	S	O_2	σ_t	δT_{-5}^{3}	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

63.100 STRANGER; November 4, 1958; 0145 GCT; 35°40.5'N, 125°57'W; sounding, 2520 fm; wind, 360°, force 2; weather, clear; sea, moderate; wire angle, 09°.

0	17.92	33.08	5.38	407	0	17.92	33.08	5.38	23.84	407	0.00
11	17.88	33.10	5.01	404	10	17.89	33.09	5.02	23.87	405	0.04
40	17.86	33.08	5.24	406	20	17.87	33.09	5.04	23.87	405	0.08
77	13.30	33.00	6.04	315	30	17.87	33.09	5.08	23.87	405	0.12
86	12.71	33.12	5.79	295	50	17.00	33.01	5.36	24.01	391	0.20
114	11.32	33.24	5.26	262	75	13.50	33.00	6.03	24.77	319	0.29
145	9.06	33.42	4.47	212	100	12.01	33.18	5.51	25.20	278	0.37
167	8.60	33.59	4.27	192	150	8.92	33.47	4.41	25.96	205	0.49
190	8.28	33.78	4.25	174	200	8.18	33.83	4.20	26.35	168	0.58
226	7.85	33.93	3.56	156	250	7.40	33.97	3.25	26.58	147	0.66
268	7.01	33.98	2.98	141	300	6.63	33.97	2.62	26.68	137	0.74
308	6.56	33.97	2.49	136	400	5.75	34.05	1.29	26.86	120	0.87
354	6.26	33.99	1.85	131	500	5.27	34.15	0.69	27.00	107	0.99
401	5.74	34.05	1.28	120	600	5.09	34.30	0.38	27.13	94	1.10
447	5.48	34.11	0.96	113	700	4.63	34.33	0.34	27.21	86	1.20
503	5.26	34.16	0.68	106	800	4.26	34.39	0.40	27.29	79	1.29
568	5.22	34.29	0.40	96	1000	3.62	34.46	0.52	27.42	67	1.45
661	4.78	34.31	0.34	90							
759	4.40	34.36	0.35	82							
852	4.08	34.43	0.44	74							
968	3.71	34.45	0.46	69							
1014	3.58	34.49	0.54	64							

67.60 STRANGER; October 30, 1958; 1750 GCT; 36°29.5'N, 122°48'W; sounding, 1450 fm; wind, 230°, force 2; weather, overcast; sea, slight; wire angle, 03°.

0	15.46	33.40	5.66	329	0	15.46	33.40	5.66	24.66	329	0.00
11	15.46	33.40	5.73	329	10	15.46	33.40	5.72	24.66	329	0.03
40	15.26	33.46	5.59	321	20	15.44	33.40	5.72	24.66	329	0.06
54	12.10	33.48	4.33	257	30	15.40	33.42	5.71	24.69	326	0.10
69	10.86	33.57	3.96	230	50	13.72	33.48	4.86	25.09	288	0.16
87	10.12	33.64	3.74	212	75	10.59	33.60	3.89	25.78	222	0.22
116	9.36	33.75	3.48	192	100	9.72	33.68	3.62	26.00	202	0.28
147	9.02	33.92	2.74	174	150	9.01	33.97	2.70	26.33	170	0.37
170	8.94	34.02	2.35	165	200	8.61	34.05	2.15	26.46	158	0.45
193	8.70	34.04	2.20	160	250	8.18	34.13	1.68	26.59	146	0.53
230	8.30	34.09	1.90	151	300	7.43	34.14	1.50	26.70	136	0.60
272	8.01	34.16	1.49	141	400	6.63	34.23	0.82	26.89	118	0.74
314	7.18	34.13	1.49	132	500	5.98	34.28	0.55	27.01	106	0.85
360	6.88	34.20	1.11	123	600	5.38	34.33	0.44	27.13	94	0.96
407	6.60	34.23	0.79	117	700	4.76	34.36	0.44	27.22	86	1.05
454	6.30	34.23	0.67	113	800	4.39	34.40	0.46	27.29	79	1.14
510	5.92	34.30	0.52	103	1000	3.77	34.49	0.67	27.43	66	1.30
576	5.54	34.33	0.45	96							
670	4.90	34.34	0.43	89							
763	4.52	34.39	0.43	81							
864	4.18	34.42	0.50	75							
983	3.82	34.45	0.68	70							
1030	3.70	34.52	0.60	64							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

67.70

STRANGER; October 30, 1958; 2348 GCT; 36°08'N, 123°29.5'W; sounding, 1900 fm; wind, 200°, force 2; weather, cloudy; sea, slight; wire angle, 05°.

3	16.00	33.35	5.74	344	0	(16.00)	(33.35)	(5.74)	(24.50)	(344)	(0.00)
13	15.82	33.37	5.76	339	10	15.88	33.36	5.75	24.54	341	0.04
41	15.61	33.35	5.66	336	20	15.76	33.37	5.74	24.56	338	0.07
55	12.49	33.38	4.77	272	30	15.72	33.36	5.72	24.58	337	0.10
70	11.42	33.48	4.12	246	50	13.93	33.35	5.13	24.95	301	0.16
88	10.61	33.57	3.68	225	75	11.22	33.50	4.00	25.60	240	0.23
114	9.94	33.69	3.29	205	100	10.18	33.60	3.45	25.84	217	0.29
146	9.51	33.84	2.78	187	150	9.49	33.85	2.75	26.16	187	0.39
169	9.28	33.90	2.53	180	200	8.88	33.99	2.21	26.36	167	0.48
226	8.55	34.05	1.95	157	250	8.31	34.09	1.85	26.53	151	0.56
267	8.18	34.11	1.77	147	300	7.92	34.14	1.51	26.63	142	0.64
309	7.83	34.15	1.43	140	400	6.99	34.23	0.90	26.83	123	0.78
355	7.40	34.19	1.22	131	500	6.24	34.25	0.56	26.94	112	0.90
401	6.99	34.23	0.88	122	600	5.52	34.32	0.40	27.10	97	1.01
447	6.68	34.25	0.69	117	700	5.01	34.37	0.34	27.19	89	1.11
503	6.22	34.25	0.55	111	800	4.55	34.39	0.34	27.27	81	1.20
569	5.70	34.29	0.45	102	1000	3.88	34.47	0.48	27.40	69	1.37
663	5.20	34.36	0.35	91							
761	4.71	34.38	0.33	83							
855	4.35	34.42	0.36	77							
971	3.98	34.47	0.44	69							
1018	3.82	34.47	0.50	66							

67.80

STRANGER; October 31, 1958; 0558 GCT; 35°48'N, 124°12.5'W; sounding, 2180 fm; wind, 210°, force 4; weather, cloudy; sea, moderate; wire angle, 07°.

0	15.87	33.34	5.76	342	0	15.87	33.34	5.76	24.52	342	0.00
12	15.89	33.36	5.66	341	10	15.89	33.35	5.67	24.53	341	0.03
40	15.02	33.37	5.51	323	20	15.81	33.37	5.58	24.56	339	0.07
59	11.26	33.33	4.67	254	30	15.70	33.37	5.56	24.58	336	0.10
73	10.45	33.36	4.59	238	50	12.10	33.34	4.86	25.30	268	0.16
97	9.34	33.58	3.79	204	75	10.37	33.37	4.57	25.65	235	0.22
124	8.95	33.79	3.01	183	100	9.23	33.62	3.65	26.02	200	0.28
156	8.54	33.93	2.73	166	150	8.60	33.92	2.78	26.35	168	0.37
183	8.21	33.96	2.54	159	200	8.12	34.04	2.05	26.52	152	0.45
205	8.10	34.05	2.02	151	250	7.48	34.09	2.10	26.66	139	0.53
242	7.60	34.09	2.11	141	300	6.80	34.11	1.46	26.77	128	0.60
288	6.88	34.10	1.63	130	400	6.20	34.16	0.92	26.89	118	0.72
330	6.69	34.14	1.26	125	500	5.58	34.22	0.54	27.02	105	0.84
386	6.23	34.15	0.96	119	600	5.05	34.28	0.54	27.12	95	0.95
432	6.00	34.18	0.73	114	700	4.67	34.37		27.23	84	1.04
488	5.65	34.22	0.55	106	800	4.37	34.40		27.29	79	1.13
540	5.37	34.23	0.52	102	1000	3.82	34.48	0.57	27.40	68	1.29
616	4.97	34.31	0.54	92							
719	4.61	34.38	0.38	83							
822	4.31	34.40	0.54a)	78							
926	4.03	34.43	0.54	73							
1048	3.70	34.49	0.59	66							
1102	3.60	34.49	0.70	65							

a) Alternate value, 0.63 ml/L.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{-5}T_3$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{-5}T_3$ 10^{-5} cm/g	ΔD dyn. m
67.100	STRANGER; November 4, 1958; 0653 GCT; 35°07.5'N, 125°36'W; sounding, 2500 fm; wind, 320°, force 2; weather, partly cloudy; sea, moderate; wire angle, 08°.										
0	17.24	33.10	5.27	390	0	17.24	33.10	5.27	24.02	390	0.00
12	17.24	33.11	5.31	389	10	17.24	33.11	5.30	24.02	390	0.04
40	14.87	33.16	5.70	335	20	16.92	33.13	5.44	24.11	381	0.08
73	12.67	33.17	5.20	290	30	16.00	33.14	5.58	24.34	359	0.11
86	11.90	33.21	5.33	274	50	14.17	33.16	5.57	24.76	320	0.18
95	11.04	33.26	4.94	256	75	12.54	33.18	5.22	25.10	288	0.26
123	9.25	33.50	4.29	209	100	10.68	33.30	4.80	25.53	246	0.33
155	8.73	33.74	3.61	183	150	8.80	33.71	3.76	26.17	186	0.43
181	8.39	33.91	3.15	165	200	8.11	33.85	3.08	26.45	159	0.52
202	8.09	33.95	3.57u	158	250	7.34	33.88	2.85	26.60	145	0.60
238	7.49	33.98	2.92	148	300	6.66	34.00	2.40	26.70	135	0.67
284	6.83	34.00	2.56	137	400	5.94	34.12	1.04	26.90	117	0.80
324	6.39	34.01	2.11	131	500	5.30	34.16	0.65	27.00	107	0.92
380	6.06	34.09	1.36	121	600	5.06	34.30	0.37	27.14	94	1.03
426	5.76	34.15	0.86	113	700	4.64	34.34	0.31	27.21	86	1.12
482	5.39	34.15	0.71	108	800	4.39	34.39	0.36	27.28	80	1.21
533	5.20	34.22	0.54	101	1000	3.78	34.45	0.55	27.40	69	1.38
605	5.04	34.31	0.35	93							
708	4.62	34.34	0.30	86							
811	4.36	34.40	0.38	79							
914	4.02	34.41	0.44	75							
1034	3.69	34.46	0.59	68							
1081	3.56	34.50	0.64	64							
70.90	STRANGER; November 4, 1958; 1951 GCT; 34°54'N, 124°30.5'W; sounding, 2370 fm; wind, 330°, force 4; weather, partly cloudy; sea, rough; wire angle, 17°.										
3	16.66	33.39	5.48	356	0	(16.66)	(33.39)	(5.48)	(24.37)	(356)	(0.00)
12	16.66	33.37	5.37	357	10	16.66	33.38	5.36	24.37	356	0.04
39	16.51	33.40	5.36	352	20	16.65	33.38	5.37	24.37	356	0.07
57	13.46	33.33	5.42	294	30	16.60	33.38	5.36	24.39	355	0.11
71	10.88	33.40	4.42	242	50	16.03	33.38	5.37	24.52	342	0.18
92	9.68	33.63	3.51	206	75	10.58	33.45	4.20	25.66	234	0.25
118	9.10	33.77	2.96	186	100	9.45	33.68	3.31	26.04	198	0.30
148	8.65	33.91	2.53	169	150	8.62	33.92	2.50	26.35	168	0.40
174	8.32	34.00	2.19	158	200	8.01	34.02	2.00	26.52	152	0.48
195	8.04	34.02	2.02	152	250	7.66	34.12	1.41	26.66	139	0.55
228	7.83	34.10	1.61	143	300	7.18	34.12	1.18	26.75	131	0.62
270	7.50	34.14	1.26	136	400	6.26	34.20	0.69	26.91	115	0.75
309	7.04	34.14	1.15	130	500	5.62	34.26	0.42	27.04	103	0.86
362	6.44	34.15	0.95	122	600	5.13	34.33	0.30	27.15	92	0.97
406	6.23	34.21	0.68	114	700	4.76	34.33	0.29	27.20	88	1.06
461	5.84	34.22	0.57	109	800	4.44	34.41	0.31	27.29	79	1.15
509	5.58	34.27	0.40	102	1000	3.81	34.52	0.46	27.45	64	1.31
579	5.22	34.33	0.32	93							
678	4.83	34.32	0.28	90							
778	4.50	34.40	0.29	80							
876	4.22	34.43	0.39	75							
997	3.82	34.52	0.45	64							
1042	3.72	34.52	0.57	63							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	ΔD dyn. m

70.100

STRANGER; November 4, 1958; 1202 GCT; 34°28'N, 125°13'W; sounding, 2480 fm; wind, 340°, force 3; weather, clear; sea, moderate; wire angle, 18°.

0	16.66	33.13	5.43	375	0	16.66	33.13	5.43	24.18	375	0.00
11	16.62	33.12	5.47	375	10	16.63	33.12	5.46	24.18	375	0.04
38	15.77	33.16	5.67	353	20	16.43	33.12	5.55	24.23	370	0.07
57	13.18	33.13	5.84	303	30	16.05	33.15	5.76	24.34	360	0.11
71	12.52	33.12	5.59	292	50	14.50	33.16	5.80	24.68	328	0.18
92	11.59	33.22	5.28	268	75	12.35	33.13	5.54	25.10	288	0.26
120	9.42	33.39	4.70	220	100	10.88	33.28	5.09	25.48	251	0.33
148	8.88	33.58	3.99	197	150	8.85	33.59	3.93	26.06	196	0.44
174	8.68	33.76	3.52	180	200	8.35	33.89	3.05	26.38	166	0.53
194	8.41	33.86	3.12	170	250	7.58	34.00	2.36	26.57	148	0.61
228	7.97	33.98	2.57	154	300	6.85	34.02	2.03	26.68	136	0.68
270	7.25	34.00	2.18	143	400	6.02	34.09	1.12	26.85	121	0.82
308	6.77	34.02	1.99	135	500	5.46	34.22	0.65	27.03	104	0.93
360	6.2	34.04	1.59	126	600	5.27	34.32	0.40	27.13	94	1.04
404	6.01	34.10	1.11	120	700	4.79	34.37	0.34	27.23	85	1.14
456	5.72	34.18	0.76	110	800	4.44	34.42	0.40	27.30	78	1.22
504	5.44	34.23	0.64	103	1000	3.73	34.44	0.50	27.39	70	1.39
575	5.34	34.31	0.42	96							
672	4.89	34.34	0.33	89							
770	4.54	34.42	0.38	79							
867	4.22	34.43	0.47	75							
984	3.78	34.43	0.47	71							
1028	3.64	34.46	0.54	67							

73.55

STRANGER; October 29, 1958; 2245 GCT; 35°29'N, 121°37'W; sounding, 504 fm; wind, 320°, force 2; weather, fog; sea, rough; wire angle, 02°.

7	15.97	33.43	5.67	338	0	16.0	(33.43)	(5.67)	(24.56)	(338)	(0.00)
17	15.66	33.39	5.99	334	10	15.80	33.41	5.81	24.59	336	0.03
45	13.10	33.39	4.77	283	20	15.63	33.39	5.99	24.62	334	0.07
60	12.07	33.45	4.73	259	30	15.58	33.38	5.99	24.62	333	0.10
74	10.92	33.57	4.15	230	50	12.79	33.41	4.75	25.23	275	0.16
92	10.40	33.64	3.56	216	75	10.89	33.57	4.14	25.71	229	0.22
121	10.06	33.73	3.18	205	100	10.30	33.66	3.42	25.88	213	0.28
152	9.57	33.85	3.07	187	150	9.60	33.84	3.08	26.14	188	0.38
183	8.84	33.91	2.93	182	200	8.80	33.99	2.40	26.38	166	0.47
206	8.80	34.02	2.33	163	250	8.40	34.10	2.00	26.53	151	0.55
242	8.46	34.09	2.08	153	300	7.99	34.16	1.57	26.64	141	0.63
285	8.10	34.14	1.67	144	400	7.09	34.22	1.07	26.81	124	0.77
326	7.75	34.20	1.44	134	500	6.21	34.30	0.58	27.00	107	0.89
373	7.27	34.21	1.27	128	600	5.63	34.34	0.44	27.10	97	1.00
421	6.93	34.23	0.91	121	700	5.02	34.39	0.42	27.21	87	1.09
468	6.41	34.27	0.70	112	800	(4.56)	(34.44)		(27.31)	(77)	(1.18)
526	6.02	34.31	0.49	104							
583	5.72	34.33a)	0.44	98							
679	5.14	34.38a)	0.42	88							
780	4.65	34.43a)	0.42	80							

a) Salinity bottle numbers were not recorded on the data sheet. Since standard handling and titrating procedures were used, these salinity values are assumed to be in correct order.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

73.60 STRANGER; October 29, 1958; 1850 GCT; 35°20'N, 121°52.5'W; sounding, 1008 fm; wind, calm; weather, fog; sea, moderate; wire angle, 03°.

0	15.68	33.45	5.70	330	0	15.68	33.45	5.70	24.65	330	0.00
11	15.66	33.42	5.69	331	10	15.66	33.42	5.69	24.64	331	0.03
40	14.83	33.42	5.40	305	20	15.65	33.42	5.69	24.64	331	0.07
54	13.30	33.45	5.07	282	30	15.60	33.42	5.69	24.65	330	0.10
69	11.52	33.49	4.32	246	50	13.78	33.44	5.17	25.05	292	0.16
87	10.32	33.55	3.70	221	75	11.02	33.51	4.07	25.64	236	0.23
115	9.62	33.69	3.43	201	100	9.97	33.63	3.57	25.91	210	0.28
146	9.04	33.80	3.08	183	150	9.00	33.81	3.02	26.20	182	0.38
170	8.74	33.94	2.83	168	200	8.47	34.03	2.40	26.47	157	0.47
192	8.58	34.00	2.49	161	250	7.93	34.15	1.91	26.64	141	0.54
228	8.16	34.13	2.16	145	300	7.42	34.15	1.50	26.71	134	0.62
270	7.72	33.95r	1.71		400	6.73	34.27	0.87	26.91	115	0.75
311	7.36	34.15	1.43	133	500	6.00	34.31	0.60	27.03	104	0.86
358	7.09	34.20	1.19	126	600	5.50	34.32	0.46	27.10	97	0.97
404	6.69	34.28	0.85	114	700	4.95	34.36	0.42	27.20	88	1.06
452	6.31	34.29	0.74	109	800	4.54	34.41	0.50	27.28	80	1.16
508	5.96	34.31	0.58	103	1000	3.94	34.51	0.70	27.43	66	1.32
575	5.63	34.31	-	100							
671	5.09	34.36	0.39	90							
770	4.66	34.38	0.46	83							
865	4.30	34.47	0.61	73							
985	3.98	34.51	0.70	67							
1032	3.82	34.51	0.70	66							

73.70 STRANGER; October 29, 1958; 1245 GCT; 34°59.5'N, 122°36.5'W; sounding, 2160 fm; wind, 350°, force 5; weather, overcast; sea, rough; wire angle, 05°.

3	16.86	33.40	5.57	360	0	(16.86)	(33.40)	(5.57)	(24.34)	(360)	(0.00)
12	16.86	33.43	5.65	357	10	16.85	33.42	5.62	24.36	358	0.04
26	16.82	33.39	5.55	360	20	16.85	33.39	5.59	24.35	359	0.07
41	12.68	33.14	5.80	293	30	16.81	33.39	5.54	24.35	359	0.11
70	11.04	33.53	3.91	237	50	11.89	33.23	5.33	25.27	271	0.17
89	10.38	33.58	3.77	220	75	10.84	33.55	3.86	25.69	231	0.23
116	9.26	33.73	3.67	192	100	9.72	33.60	3.77	25.93	208	0.29
148	8.74	33.87	3.10	173	150	8.72	33.89	3.04	26.32	172	0.38
169	8.61	34.00	2.22	162	200	8.32	34.10	1.89	26.54	150	0.47
191	8.39	34.07	1.99	153	250	7.63	34.12	1.71	26.66	140	0.54
228	8.06	34.14	1.72	144	300	6.79	34.07	1.71	26.74	132	0.61
268	7.28	34.09	1.70	137	400	6.08	34.15	0.92	26.90	117	0.74
310	6.64	34.07	1.71	130	500	5.42	34.21	0.61	27.02	105	0.86
357	6.28	34.14	1.26	120	600	5.09	34.33	0.49	27.16	92	0.96
403	6.05	34.15	0.88	117	700	4.74	34.35	0.46	27.22	86	1.05
449	5.67	34.18	0.70	110	800	4.45	34.41	0.48	27.29	79	1.14
506	5.40	34.22	0.60	104	1000	3.80	34.47	0.71	27.40	68	1.30
570	5.19	34.32	0.50	94							
663	4.85	34.34	0.48	89							
762	4.56	34.40	0.46	81							
855	4.28	34.43	0.57	76							
972	3.88	34.47	0.62	69							
1018	3.76	34.46	0.75	68							

OBSERVED					INTERPOLATED				COMPUTED			
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10^{-5} cm/g	ΔD dyn. m	
STRANGER; October 29, 1958; 0605 GCT; 34°39'N, 123°20'W; sounding, 2240 fm; wind, 320°, force 4; weather, cloudy; sea, very rough; wire angle, 03°.												73.80
0	17.00	33.48	5.16	357	0	17.00	33.48	5.16	24.37	357	0.00	
11	16.98	33.45	6.30r	358	10	16.97	33.45	5.17	24.36	358	0.04	
40	15.15	33.46	5.42	318	20	16.96	33.45	5.17	24.36	358	0.07	
59	10.37	33.57	3.63	221	30	16.92	33.45	5.18	24.37	357	0.11	
73	9.79	33.60	3.56	210	50	10.86	33.56	4.83	25.70	230	0.16	
96	9.16	33.74	2.96	189	75	9.72	33.61	3.50	25.94	208	0.22	
123	8.81	33.87	2.67	175	100	9.09	33.76	2.90	26.14	187	0.27	
155	8.48	33.95	2.33	164	150	8.57	33.93	2.39	26.38	166	0.36	
184	8.19	34.04	2.00	153	200	7.98	34.04	1.89	26.54	150	0.44	
206	7.91	34.04	1.86	149	250	7.20	34.07	1.58	26.68	137	0.51	
242	7.26	34.06	1.66	139	300	6.83	34.13	1.10	26.78	128	0.58	
289	6.94	34.13	1.19	129	400	6.00	34.14	0.66	26.90	116	0.71	
331	6.60	34.13	0.95	125	500	5.40	34.23	0.46	27.04	103	0.82	
387	6.09	34.14	0.68	118	600	5.00	34.34	0.38	27.18	90	0.92	
433	5.64	34.16	0.62	111	700	4.72	34.37	0.36	27.23	85	1.02	
490	5.43	34.22	0.50	104	800	4.31	34.41	0.31	27.31	77	1.10	
542	5.26	34.24	0.38	101	1000	3.74	(34.47)	0.60	(27.42)	(67)	(1.26)	
617	4.93	34.36	0.38	88								
721	4.66	34.37	0.35	84								
826	4.21	34.42	0.32	76								
929	3.93	34.46	0.53	70								
1051	3.62	34.52u	0.64									
1098	3.50	34.46u	0.78									
STRANGER; November 5, 1958; 0141 GCT; 34°16.5'N, 124°03'W; sounding, 2120 fm; wind, 340°, force 5; weather, partly cloudy; sea, rough; wire angle, 26°.												73.90
3	16.58	33.39	5.80	354	0	(16.58)	(33.39)	(5.80)	(24.40)	(354)	(0.00)	
11	16.59	33.38	5.51	355	10	16.59	33.39	5.53	24.39	355	0.04	
37	16.33	33.35	5.56	351	20	16.52	33.37	5.51	24.40	354	0.07	
69	11.64	33.28	4.96	264	30	16.44	33.36	5.52	24.41	353	0.11	
81	10.38	33.48	4.26	228	50	13.50	33.29	5.21	24.99	298	0.17	
89	9.91	33.45	4.40	222	75	11.12	33.34	4.68	25.49	250	0.24	
115	8.67	33.62	3.88	191	100	9.00	33.48	4.35	25.95	207	0.30	
144	8.32	33.86	3.57	168	150	8.27	33.88	3.51	26.38	166	0.39	
169	8.08	33.95	3.01	158	200	7.70	34.01	2.65	26.56	148	0.47	
188	7.81	33.99	2.86	151	250	7.27	34.10	1.84	26.70	136	0.54	
221	7.54	34.04	2.15	144	300	6.83	34.11	1.44	26.76	129	0.61	
262	7.13	34.11	1.72	133	400	6.17	34.22	0.70	26.95	112	0.74	
299	6.84	34.11	1.45	129	500	5.63	34.26	0.58	27.04	103	0.85	
349	6.35	34.16	1.01	120	600	5.15	34.31	0.52	27.14	93	0.95	
391	6.20	34.22	0.71	113	700	4.67	34.38	0.52	27.24	84	1.05	
443	5.90	34.24	0.67	108	800	4.37	34.43	0.52	27.32	76	1.14	
491	5.66	34.26	0.59	103	1000	3.72	34.49	0.70	27.43	66	1.29	
561	5.26	34.29	0.54	97								
658	4.83	34.36	0.50	87								
755	4.50	34.41	0.54	79								
853	4.18	34.45	0.50	73								
968	3.78	34.49	0.64	66								
1012	3.70	34.49	0.73	66								

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
77.55	STRANGER; October 28, 1958; 0745 GCT; 34°54.5'N, 121°13'W; sounding, 260 fm; wind, 320°, force 4; weather, cloudy; sea, very rough; wire angle, 20°.										
0	15.55	33.38	5.46	333	0	15.55	33.38	5.46	24.63	333	0.00
11	15.54	33.40	5.73	331	10	15.54	33.40	5.71	24.64	331	0.03
29	15.42	33.42	5.78	327	20	15.49	33.41	5.75	24.66	329	0.07
38	15.40	33.40	5.56	328	30	15.41	33.40	5.70	24.68	327	0.10
46	14.44	33.42	5.59	306	50	13.60	33.41	5.23	25.06	291	0.16
55	12.81	33.40	4.81	276	75	11.03	33.56	3.95	25.67	233	0.23
63	12.42	33.44	4.66	266	100	10.14	33.72	3.27	25.95	206	0.28
74	11.04	33.55	3.99	234	150	9.56	33.91	2.45	26.20	183	0.38
91	10.44	33.64	3.55	217	200	8.92	34.04	2.29	26.40	164	0.47
99	10.18	33.71	3.31	207	250	8.00	34.06	2.15	26.56	148	0.55
116	9.78	33.82	2.82	193	300	7.32	34.11	1.88	26.70	136	0.62
138	9.62	33.87	2.51	187	400	6.71	34.20	1.61	26.85	121	0.75
164	9.44	33.95	2.38	178	500	(6.06)	(34.29)		(27.01)	(106)	(0.87)
202	8.87	34.04	2.18	163							
265	7.70	34.07	2.14	144							
349	6.99	34.16	1.39	127							
464	6.31	34.27	0.67	110							
77.60	STRANGER; October 28, 1958; 1155 GCT; 34°45'N, 121°34'W; sounding, 410 fm; wind, 320°, force 4; weather, overcast; sea, very rough; wire angle, 03°.										
0	16.92	33.26		371	0	16.92	33.26		24.22	371	0.00
11	16.94	33.25		372	10	16.92	33.25		24.21	372	0.04
40	16.65	33.22		368	20	16.92	33.24		24.21	372	0.07
73	11.56	33.28		263	30	16.90	33.24		24.21	372	0.11
87	10.67	33.55		227	50	14.51	33.23		24.74	322	0.18
96	9.86	33.50		218	75	11.54	33.28		25.37	262	0.25
124	9.00	33.73		188	100	9.63	33.51		25.87	214	0.31
156	8.76	33.95		168	150	8.80	33.93		26.33	170	0.41
184	8.30	34.00		157	200	8.20	34.03		26.51	154	0.49
206	8.18	34.05		152	250	8.07	34.18		26.65	140	0.57
242	8.14	34.16		143	300	7.47	34.24		26.77	128	0.64
290	7.57	34.23		130	400	7.00	34.28		26.88	118	0.76
332	7.28	34.25		125	500	6.30	34.33		27.01	106	0.88
389	7.03	34.27		120	600	5.52	34.33		27.10	97	0.99
436	6.82	34.33		113	700	4.87	34.38		27.22	86	1.09
492	6.38	34.33		107							
544	5.93	34.31		103							
620	5.38	34.34		94							
726	4.79	34.40		83							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

77.70

STRANGER; October 28, 1958; 1734 GCT; 34°27.5'N, 122°12'W; sounding, 2120 fm; wind, 340°, force 4; weather, cloudy; sea, very rough; wire angle, 03°.

0	17.30	33.24	5.62	382	0	17.30	33.24	5.62	24.10	382	0.00
11	17.30	33.22	5.63	382	10	17.29	33.22	5.63	24.10	382	0.04
25	17.29	33.28	5.68	378	20	17.29	33.26	5.66	24.13	379	0.08
40	16.77	33.42	5.64	356	30	16.86	33.41	5.66	24.35	359	0.11
69	11.21	33.18	5.42	264	50	12.32	33.21	5.50	25.17	281	0.18
88	9.92	33.39	4.88	227	75	11.20	33.35	5.06	25.48	251	0.24
117	9.16	33.71	3.57	192	100	9.11	33.51	4.90	25.95	206	0.30
149	8.73	33.87	3.07	173	150	8.70	33.88	3.02	26.31	172	0.40
171	8.46	33.97	2.62	162	200	7.98	34.04	2.47	26.55	150	0.48
193	8.09	34.04	2.49	151	250	7.24	34.06	2.23	26.67	138	0.55
230	7.38	34.04	2.43	142	300	6.67	34.10	1.58	26.78	128	0.62
271	7.12	34.09	1.75	134	400	5.99	34.19	0.91	26.94	112	0.75
312	6.52	34.11	1.50	125	500	5.60	34.29	0.69	27.06	101	0.86
359	6.31	34.17	1.01	118	600	5.18	34.36	0.36	27.18	90	0.96
404	5.95	34.20	0.87	111	700	4.73	34.41	0.32	27.26	82	1.05
451	6.10	34.31	0.75	105	800	4.43	34.43	0.36	27.32	77	1.14
507	5.57	34.29	0.67	100	1000	3.82	34.50	0.65	27.41	68	1.29
574	5.30	34.34	0.40	93							
668	4.83	34.39	0.32	85							
770	4.51	34.43	0.33	78							
865	4.26	34.44	0.43	75							
985	3.85	34.48	0.59	68							
1033	3.74	34.47	0.75	68							

77.80

STRANGER; October 29, 1958; 0003 GCT; 34°07.5'N, 122°54.5'W; sounding, 2300 fm; wind, 350°, force 4; weather, partly cloudy; sea, very rough; wire angle, 10°.

2	16.96	33.42	5.49	360	0	(16.96)	(33.42)	(5.49)	(24.33)	(360)	(0.00)
12	16.93	33.42	5.56	360	10	16.93	33.42	5.52	24.34	360	0.04
40	16.64	33.39	5.58	355	20	16.87	33.42	5.56	24.35	359	0.07
55	11.03	33.40	4.28	245	30	16.80	33.43	5.57	24.36	358	0.11
68	9.91	33.48	4.14	220	50	12.00	33.39	4.51	25.38	261	0.17
87	8.98	33.51	4.37	204	75	9.70	33.50	4.17	25.85	216	0.23
114	9.00	33.81	2.97	182	100	8.73	33.57	3.90	26.06	196	0.28
146	8.58	33.96	2.43	164	150	8.52	33.97	2.40	26.42	162	0.37
167	8.34	34.01	2.31	157	200	7.91	34.04	1.97	26.56	149	0.45
190	8.02	34.04	2.00	151	250	7.41	34.16	1.50	26.72	133	0.52
224	7.56	34.06	1.84	143	300	6.99	34.17	1.10	26.79	126	0.59
266	7.37	34.18	1.32	131	400	6.05	34.23	0.69	26.96	110	0.71
307	6.90	34.17	1.08	125	500	5.56	34.27	0.61	27.06	101	0.82
353	6.13	34.15	0.98	117	600	5.12	34.32	0.34	27.15	93	0.92
399	6.06	34.23	0.70	111	700	4.62	34.34	0.33	27.21	86	1.02
446	5.84	34.23	0.59	108	800	4.29	34.39	0.45	27.30	78	1.11
501	5.56	34.28	0.61	101	1000	3.72	34.47	0.63	27.41	68	1.27
567	5.28	34.31	0.37	95							
661	4.79	34.34	0.32	88							
760	4.40	34.35	0.36	83							
854	4.14	34.46	0.54	72							
971	3.78	34.47	0.56	69							
1018	3.69	34.47	0.68	67							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T} $^{-5}_{10}$ ^{3} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T} $^{-5}_{10}$ ^{3} cm/g	ΔD dyn. m
77.90	STRANGER; November 5, 1958; 0650 GCT; 33°44'N, 123°38'W; sounding, 2240 fm; wind, 010°, force 6; weather, clear; sea, very rough; wire angle, 19°.										
0	17.75	33.15	5.48	398	0	17.75	33.15	5.48	23.94	398	0.00
11	17.76	33.17	5.62	396	10	17.76	33.17	5.61	23.95	397	0.04
38	17.37	33.18	5.48	387	20	17.76	33.18	5.62	23.96	396	0.08
69	12.98	33.04	6.04	306	30	17.58	33.18	5.56	24.01	391	0.12
83	12.52	33.04	5.83	297	50	15.05	33.09	5.89	24.51	343	0.19
91	12.18	33.08	5.59	288	75	12.76	33.04	5.99	24.94	302	0.27
115	10.22	33.35	4.75	235	100	11.60	33.16	5.30	25.25	273	0.35
143	8.98	33.57	4.02	199	150	8.87	33.62	4.67	26.08	194	0.46
167	8.70	33.78	3.41	180	200	8.31	33.93	2.80	26.41	163	0.55
187	8.44	33.90	3.04	167	250	7.61	34.02	2.14	26.58	147	0.63
219	8.10	33.96	2.44	157	300	7.28	34.13	1.57	26.72	133	0.70
260	7.48	34.04	2.05	143	400	6.19	34.15	1.20	26.88	118	0.84
298	7.30	34.13	1.58	134	500	5.53	34.20	0.69	27.00	106	0.95
350	6.74	34.13	1.32	126	600	5.03	34.27	0.63	27.11	96	1.06
394	6.21	34.14	1.21	119	700	4.56	34.33	0.49	27.22	86	1.16
447	6.00	34.19	0.88	113	800	4.23	34.38	0.50	27.30	78	1.25
495	5.58	34.20	0.81	107	1000	3.75	34.48	0.68	27.43	66	1.40
565	5.22	34.25	0.66	99							
643	4.79	34.31a)	0.57	89							
762	4.34	34.36a)	0.40	81							
861	4.10	34.43a)	0.61	74							
981	3.80	34.47a)	0.66	68							
1027	3.68	34.52a)	0.75	63							
80.51	STRANGER; October 27, 1958; 2235 GCT; 34°26.5'N, 120°32.5'W; sounding, 57 fm; wind, 320°, force 5; weather, clear; sea, very rough; wire angle, 05°.										
3	17.84	33.43	5.50	379	0	(17.84)	(33.43)	(5.50)	(24.13)	(379)	(0.00)
12	16.85	33.40	5.59	359	10	17.66	33.43	5.51	24.17	375	0.04
34	14.97	33.35	5.69	323	20	15.23	33.36	5.78	24.67	328	0.07
50	13.40	33.37	5.24	290	30	15.08	33.35	5.79	24.71	324	0.10
74	12.29	33.44	4.54	264	50	13.40	33.37	5.24	25.07	290	0.17
					75	(12.27)	(33.44)	(4.53)	(25.36)	(263)	(0.24)
80.55	STRANGER; October 27, 1958; 2005 GCT; 34°22'N, 120°46'W; sounding, 320 fm; wind, 340°, force 5; weather, clear; sea, very rough; wire angle, 20°.										
4	17.58	33.41	5.41	375	0	17.6	(33.41)	(5.41)	(24.16)	(376)	(0.00)
13	16.60	33.41	5.64	353	10	16.70	33.41	5.63	24.38	355	0.04
32	13.54	33.40	5.15	290	20	16.40	33.41	5.63	24.46	348	0.07
45	12.49	33.42	4.69	269	30	14.85	33.40	5.41	25.00	296	0.10
54	12.05	33.44	4.42	260	50	12.27	33.43	4.55	25.34	264	0.16
63	11.67	33.46	4.30	252	75	11.37	33.53	4.16	25.59	241	0.22
72	11.44	33.53	4.18	242	100	10.50	33.58	3.79	25.78	223	0.28
88	11.01	33.53	4.08	235	150	9.94	33.68	3.30	25.95	206	0.39
101	10.50	33.58	3.79	222	200	9.22	33.88	2.83	26.23	180	0.49
113	10.51	33.59	3.72	222	250	8.61	34.07	2.15	26.47	157	0.38
134	10.30	33.66	3.38	213	300	7.92	34.14	1.45	26.64	141	0.65
158	9.76	33.69	3.27	202	400	6.82	34.21	0.78	26.85	121	0.79
191	9.34	33.84	2.94	185	500	6.01	34.27	0.52	27.00	107	0.91
238	8.76	34.04	2.35	161							
313	7.72	34.16	1.25	137							
407	6.78	34.22	0.76	120							
543	5.62	34.30	0.42	100							

a) Salinity bottle numbers from 643 to 1027 meters, inclusive, were listed out of order on the data sheet. Since standard handling and titrating procedures were used, present order is assumed to be correct.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T} $^{-5}_{10}$ cm^3/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T} $^{-5}_{10}$ cm^3/g	ΔD dyn. m

80.60

STRANGER; October 27, 1958; 1645 GCT; 34°09.5'N, 121°07'W; sounding, 1040 fm; wind, 360°, force 6; weather, clear; sea, very rough; wire angle, 11°.

0	17.57	33.22	5.26	389	0	17.57	33.22	5.26	24.03	389	0.00
11	17.56	33.26	5.37	385	10	17.56	33.25	5.36	24.06	386	0.04
30	17.13	33.24	5.44	377	20	17.56	33.26	5.36	24.07	385	0.07
44	16.86	33.35	5.58	363	30	17.13	33.24	5.44	24.16	377	0.12
53	14.31	33.12	5.80	326	50	16.36	33.31	5.64	24.39	355	0.19
62	13.32	33.04	5.93	313	75	12.01	33.09	5.34	25.12	285	0.27
71	12.29	33.06	5.53	292	100	10.52	33.38	4.63	25.63	237	0.34
89	11.22	33.27	4.76	258	150	8.98	33.68	4.00	26.10	192	0.44
103	10.28	33.40	4.59	232	200	8.11	33.93	3.17	26.44	160	0.53
116	9.72	33.44	4.50	220	250	7.63	34.00	2.40	26.57	148	0.61
138	9.26	33.57	4.32	204	300	7.23	34.03	1.93	26.65	140	0.69
165	8.62	33.82	3.51	176	400	6.39	34.14	1.09	26.84	122	0.82
199	8.14	33.93	3.19	160	500	5.67	34.20	0.69	26.98	108	0.94
247	7.66	34.00	2.42	149							
323	7.00	34.05	1.72	136							
420	6.23	34.16	0.94	118							
552	5.18	34.22	0.52	101							

80.70

STRANGER; October 27, 1958; 1118 GCT; 33°48'N, 121°50.5'W; sounding, 1920 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 08°.

3	17.94	33.26	5.32	394	0	(17.94)	(33.26)	(5.32)	(23.98)	(394)	(0.00)
13	17.92	33.24	5.52	394	10	17.93	33.24	5.48	23.98	394	0.04
32	17.87	33.24	5.32	393	20	17.89	33.24	5.42	23.98	394	0.08
41	17.83	33.30	5.34	389	30	17.88	33.24	5.35	23.98	394	0.12
51	16.46	33.31	5.72	358	50	17.00	33.31	5.60	24.24	369	0.19
60	13.84	33.18	-	312	75	12.98	33.37	5.77	25.08	289	0.28
69	13.58	33.26	5.96	301	100	12.25	33.44	5.25	25.36	263	0.35
83	12.90	33.33	5.57	283	150	9.00	33.70	3.92	26.12	190	0.46
96	12.50	33.44	5.33	268	200	8.32	33.91	3.51	26.40	164	0.55
110	11.24	33.42	5.06	247	250	7.53	33.99	2.61	26.57	148	0.63
132	9.62	33.50	4.41	215	300	6.91	34.03	2.08	26.69	136	0.70
159	8.79	33.78	3.78	181	400	6.00	34.11	1.16	26.87	119	0.84
191	8.42	33.89	3.61	167	500	5.47	34.20	0.74	27.02	105	0.96
236	7.73	33.98	2.79	151							
311	6.78	34.04	1.96	134							
405	5.97	34.11	1.12	118							
529	5.34	34.22	0.65	103							

80.80

STRANGER; October 27, 1958; 0559 GCT; 33°29'N, 122°32'W; sounding, 2100 fm; wind, 360°, force 4; weather, partly cloudy; sea, moderate; wire angle, 04°.

0	17.75	33.31	5.23	386	0	17.75	33.31	5.23	24.06	386	0.00
12	17.76	33.27	5.12	389	10	17.76	33.28	5.10	24.04	388	0.04
31	17.68	33.30	5.32	385	20	17.72	33.28	5.22	24.05	387	0.08
40	17.71	33.30	5.28	386	30	17.69	33.30	5.30	24.06	386	0.12
49	17.68	33.31	5.18	385	50	17.67	33.31	5.18	24.07	385	0.19
59	15.56	33.41	5.64	331	75	14.30	33.48	5.53	24.97	300	0.28
68	14.88	33.46	5.71	313	100	12.80	33.41	5.11	25.22	276	0.35
82	14.01	33.48	5.46	294	150	9.60	33.58	4.48	25.92	209	0.47
96	13.08	33.42	5.19	280	200	8.63	33.90	3.15	26.33	170	0.57
110	11.92	33.40	4.88	260	250	8.17	34.06	2.42	26.53	151	0.65
132	10.44	33.50	4.53	227	300	7.83	34.15	1.60	26.65	140	0.73
159	9.22	33.62	4.45	199	400	7.16	34.29	0.79	26.86	120	0.86
191	8.73	33.86	3.33	174	500	6.21	34.33	0.50	27.02	105	0.98
238	8.24	34.04	2.53	153							
313	7.77	34.16	1.42	138							
408	7.08	34.30	0.74	119							
532	5.84	34.33	0.45	101							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

80.90 STRANGER; October 27, 1958; 0011 GCT; 33°05'N, 123°20'W; sounding, 2300 fm; wind, 050°, force 3; weather, partly cloudy; sea, moderate; wire angle, 05°.

0	18.48	33.34	5.05	401	0	18.48	33.34	5.05	23.90	401	0.00
11	18.36	33.33	5.07	399	10	18.37	33.33	5.06	23.93	399	0.04
30	18.34	33.35	5.06	397	20	18.35	33.34	5.06	23.94	398	0.08
40	18.41	33.34	5.03	399	30	18.34	33.35	5.06	23.95	397	0.12
49	18.38	33.35	5.36	398	50	18.35	33.34	5.38	23.94	398	0.20
59	15.45	33.37	5.70	331	75	14.68	33.38	5.69	24.82	314	0.29
68	14.88	33.35	5.71	321	100	13.54	33.49	5.40	25.13	284	0.36
82	14.48	33.46	5.66	305	150	9.73	33.55	3.99	25.88	213	0.49
96	13.78	33.49	5.42	288	200	8.73	34.01	2.78	26.41	163	0.58
110	12.84	33.48	5.33	271	250	8.00	34.05	2.22	26.55	150	0.66
133	10.36	33.48	4.49	227	300	7.32	34.11	1.76	26.70	136	0.74
160	9.45	33.61	3.70	203	400	6.53	34.20	0.88	26.87	119	0.87
192	8.85	34.00	2.90	165	500	5.90	34.28	0.54	27.02	105	0.99
239	8.15	34.03	2.33	153							
313	7.16	34.13	1.64	132							
407	6.48	34.21	0.84	117							
530	5.68	34.31	0.47	100							

82.47 STRANGER; October 25, 1958; 1829 GCT; 34°15'N, 119°58'W; sounding, 311 fm; wind, 260°, force 2; weather, partly cloudy; sea, slight; wire angle, 03°.

0	18.61	33.50	5.50	392	0	18.61	33.50	5.50	24.00	392	0.00
11	18.60	33.51	5.42	392	10	18.60	33.51	5.43	24.00	392	0.04
31	15.53	33.33	5.69	335	20	18.17	33.48	5.47	24.09	383	0.08
40	14.33	33.31	5.68	312	30	15.72	33.34	5.68	24.56	339	0.11
49	13.82	33.29	5.50	304	50	13.78	33.29	5.49	24.94	303	0.18
59	13.07	33.43	5.07	279	75	11.73	33.48	4.26	25.48	251	0.25
68	11.84	33.47	4.32	254	100	11.17	33.55	3.95	25.64	236	0.31
82	11.60	33.50	4.17	247	150	10.13	33.77	3.01	25.99	203	0.42
96	11.26	33.54	4.00	239	200	9.57	33.92	2.38	26.20	183	0.52
110	10.90	33.60	3.78	228	250	8.98	34.06	1.60	26.42	162	0.61
132	10.38	33.71	3.38	211	300	8.40	34.12	1.27	26.55	150	0.69
160	10.02	33.80	2.89	199	400	7.49	34.19	0.68	26.74	132	0.83
192	9.64	33.89	2.49	186	500	6.72	34.24	0.27	26.88	118	0.96
238	9.07	34.05	1.69	165							
312	8.28	34.13	1.20	148							
407	7.40	34.20	0.63	130							
531	6.49	34.25	0.18	114							

83.40 STRANGER; October 24, 1958; 1515 GCT; 34°13'N, 119°22'W; sounding, 12 fm; wind, 270°, force 2; weather, cloudy; sea, moderate; wire angle, 00°.

0	19.61	33.56	5.28	412	0	19.61	33.56	5.28	23.79	412	0.00
12	19.60	33.51	5.32	416	10	19.60	33.52	5.31	23.76	415	0.04

83.43 STRANGER; October 24, 1958; 1644 GCT; 34°08'N, 119°34'W; sounding, 128 fm; wind, 260°, force 3; weather, cloudy; sea, moderate; wire angle, 02°.

0	18.43	33.53	5.78	386	0	18.43	33.53	5.78	24.06	386	0.00
11	18.15	33.48	5.42	383	10	18.16	33.48	5.42	24.09	383	0.04
31	17.34	33.46	5.64	366	20	18.05	33.47	5.44	24.11	381	0.08
49	16.44	33.42	5.53	349	30	17.80	33.47	5.49	24.17	376	0.11
72	12.48	33.44	5.20	267	50	16.40	33.42	5.52	24.46	348	0.19
96	11.38	33.50	3.62	243	75	12.27	33.45	5.07	25.35	263	0.26
119	10.44	33.61	4.12	219	100	11.26	33.52	3.65	25.60	239	0.33
157	9.82	33.82	2.82	194	150	10.20	33.81	2.90	26.01	201	0.44
193	9.26	33.99	2.14	173	200	(9.19)	(34.05)	(2.00)	(26.35)	(168)	(0.53)

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_3	Z	T	S	O_2	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

83.51

STRANGER; October 25, 1958; 2215 GCT; 33°52'N, 120°07.5'W; sounding, 80 fm; wind, 270°, force 2; weather, cloudy; sea, slight; wire angle, 02°.

0	19.46	33.55	5.37	409	0	19.46	33.55	5.37	23.82	409	0.00
12	19.27	33.52	5.43	407	10	19.32	33.53	5.43	23.84	407	0.04
32	15.09	33.34	5.85	326	20	19.00	33.49	5.50	23.89	402	0.08
50	13.40	33.35	5.18	291	30	15.60	33.35	5.85	24.59	336	0.12
71	11.23	33.52	4.13	239	50	13.40	33.35	5.18	25.06	291	0.18
93	11.05	33.55	4.02	234	75	11.19	33.53	4.13	25.62	238	0.25
					100	(11.02)	(33.56)	(4.02)	(25.67)	(233)	(0.31)

83.55

STRANGER; October 26, 1958; 0052 GCT; 33°44'N, 120°24.5'W; sounding, 500 fm; wind, calm; weather, cloudy; sea, slight; wire angle, 00°.

3	18.82	33.49	5.48	398	0	(18.82)	(33.49)	(5.48)	(23.93)	(398)	(0.00)
13	18.46	33.52	5.58	388	10	18.58	33.51	5.53	24.01	391	0.04
32	16.87	33.46	5.77	356	20	17.75	33.49	5.69	24.20	373	0.08
41	15.28	33.40	5.75	325	30	16.99	33.47	5.76	24.36	358	0.11
51	14.64	33.36	5.55	315	50	14.68	33.36	5.56	24.78	316	0.18
60	13.97	33.37	5.47	301	75	12.19	33.41	4.88	25.34	264	0.25
70	12.63	33.39	5.12	274	100	10.40	33.59	3.85	25.81	220	0.32
83	11.50	33.44	4.47	250	150	9.60	33.83	2.84	26.11	190	0.42
97	10.56	33.56	3.98	225	200	9.15	34.05	2.22	26.38	166	0.51
111	10.06	33.68	3.46	208	250	8.72	34.16	1.81	26.52	152	0.59
135	9.80	33.78	3.08	196	300	8.02	34.21	1.41	26.68	138	0.67
161	9.44	33.88	2.66	184	400	7.18	34.23	1.01	26.81	125	0.80
193	9.19	34.03	2.24	169	500	6.43	34.28	0.66	26.94	112	0.93
238	8.84	34.14	1.92	155							
311	7.88	34.22	1.33	135							
404	7.16	34.23	1.00	124							
527	6.22	34.29	0.57	108							

83.60

STRANGER; October 26, 1958; 0330 GCT; 33°35'N, 120°42.5'W; sounding, 680 fm; wind, 190°, force 1; weather, partly cloudy; sea, slight; wire angle, 02°.

0	17.72	33.33	5.42	384	0	17.72	33.33	5.42	24.08	384	0.00
11	17.46	33.35	5.40	377	10	17.47	33.35	5.40	24.15	377	0.04
30	16.83	33.35	5.66	363	20	17.11	33.35	5.54	24.25	368	0.08
40	16.56	33.37	5.67	355	30	16.83	33.35	5.66	24.31	363	0.11
49	15.45	33.28	5.86	338	50	14.96	33.26	5.87	24.66	329	0.18
59	14.16	33.25	5.86	313	75	12.88	33.40	5.26	25.20	278	0.26
69	13.62	33.35	5.66	295	100	10.41	33.58	3.91	25.79	221	0.32
82	11.57	33.45	4.53	250	150	9.50	33.83	2.93	26.14	188	0.42
96	10.56	33.53	4.03	227	200	9.19	33.94	2.58	26.28	175	0.52
110	10.16	33.66	3.58	211	250	8.60	34.13	1.95	26.52	152	0.60
132	9.82	33.78	3.06	197	300	8.08	34.21	1.47	26.68	138	0.68
160	9.34	33.86	2.86	183	400	6.95	34.23	1.04	26.84	122	0.81
192	9.24	33.92	2.66	177	500	6.40	34.29	0.60	26.95	110	0.93
238	8.69	34.11	2.06	155							
312	7.98	34.22	1.36	136							
406	6.86	34.23	1.02	121							
531	6.28	34.33	0.48	106							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

83.70 STRANGER; October 26, 1958; 0829 GCT; 33°13'N, 121°25.5'W; sounding, 2000 fm; wind, 240°, force 1; weather, cloudy; sea, slight; wire angle, 01°.

0	17.84	33.31	5.44	388	0	17.84	33.31	5.44	24.04	388	0.00
11	17.83	33.30	5.51	388	10	17.83	33.30	5.51	24.04	388	0.04
31	17.68	33.40	5.51	378	20	17.76	33.33	5.51	24.07	385	0.08
40	17.72	33.44	5.45	376	30	17.68	33.40	5.46	24.14	379	0.12
50	15.93	33.35	5.88	342	50	15.93	33.35	5.88	24.52	342	0.19
59	14.34	33.33	6.03	311	75	13.80	33.47	5.73	25.07	290	0.27
69	13.82	33.40	5.73	290	100	11.40	33.49	5.07	25.54	245	0.34
82	13.22	33.49	5.78	278	150	9.12	33.73	4.25	26.12	190	0.44
97	11.72	33.48	5.12	251	200	8.40	33.96	2.97	26.42	162	0.53
110	10.64	33.51	4.93	230	250	7.82	34.09	2.25	26.62	143	0.61
133	9.62	33.60	4.52	207	300	7.19	34.16	1.71	26.75	130	0.68
161	8.88	33.80	4.04	181	400	6.41	34.20	0.96	26.89	117	0.81
193	8.50	33.93	3.11	165	500	5.89	34.25	0.65	27.00	107	0.93
240	7.92	34.07	2.32	147							
315	6.99	34.18	1.56	126							
410	6.36	34.20	0.91	116							
533	5.68	34.29	0.57	102							

83.80 STRANGER; October 26, 1958; 1225 GCT; 32°52'N, 122°05'W; sounding, 2200 fm; wind, 130°, force 2; weather, partly cloudy; sea, smooth; wire angle, 00°.

0	18.11	33.40	5.41	388	0	18.11	33.40	5.41	24.04	388	0.00
12	18.09	33.33	5.36	392	10	18.10	33.33	5.37	24.00	392	0.04
31	17.87	33.40	5.40	383	20	18.00	33.35	5.37	24.03	389	0.08
55	14.52	33.26	5.89	320	30	17.88	33.40	5.39	24.09	383	0.12
64	12.78	33.22	5.59	289	50	15.80	33.31	5.77	24.51	343	0.19
74	12.05	33.35	4.97	266	75	12.00	33.37	4.88	25.35	264	0.26
82	11.46	33.48	4.41	247	100	10.06	33.51	4.64	25.80	220	0.33
96	10.30	33.49	4.71	226	150	8.92	33.87	3.20	26.26	177	0.43
110	9.65	33.58	4.33	209	200	8.25	34.02	2.48	26.49	155	0.51
128	9.24	33.68	3.96	195	250	7.68	34.08	2.43	26.64	141	0.59
146	8.98	33.85	3.33	178	300	7.25	34.15	1.57	26.74	131	0.66
168	8.76	33.95	2.60	167	400	6.89	34.29	0.72	26.90	117	0.79
190	8.39	34.01	2.47	158	500	6.21	34.36	0.57	27.05	102	0.90
237	7.72	34.06	2.44	145							
311	7.18	34.17	1.36	129							
407	6.86	34.31	0.69	115							
531	5.92	34.37	0.54	98							

83.90 STRANGER; October 26, 1958; 1850 GCT; 32°30'N, 122°47'W; sounding, 2000 fm; wind, 200°, force 2; weather, overcast; sea, moderate; wire angle, 00°.

0	17.68	33.46	5.30	374	0	17.68	33.46	5.30	24.19	374	0.00
12	17.67	33.40	5.30	378	10	17.67	33.41	5.30	24.15	377	0.04
31	17.64	33.39	5.26	378	20	17.65	33.40	5.28	24.14	378	0.08
40	17.65	33.42	5.33	376	30	17.64	33.40	5.27	24.14	378	0.11
50	16.82	33.33	5.50	364	50	16.82	33.33	5.50	24.30	364	0.19
59	14.32	33.21	5.73	319	75	13.23	33.31	5.34	25.07	290	0.27
69	13.57	33.27	5.48	300	100	11.11	33.49	4.15	25.59	240	0.34
82	12.28	33.35	5.20	271	150	8.98	33.73	3.76	26.14	188	0.44
96	11.37	33.48	4.78	245	200	8.35	33.98	2.39	26.44	160	0.53
110	10.42	33.49	4.36	228	250	7.80	34.04	1.89	26.57	148	0.61
132	9.31	33.64	4.15	199	300	7.53	34.11	1.52	26.66	139	0.68
158	8.86	33.79	3.56	181	400	6.54	34.22	0.81	26.89	117	0.82
191	8.50	33.96	2.54	163	500	5.80	34.18	0.52	27.03	104	0.93
236	7.85	34.02	2.00	150							
310	7.50	34.13	1.47	137							
405	6.52	34.23	0.79	116							
528	5.62	34.29	0.46	101							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	ΔD dyn. m

87.35

STRANGER; October 24, 1958; 0937 GCT; 33°50'N, 118°37.5'W; sounding, 240 fm; wind, calm; weather, cloudy; sea, moderate; wire angle, 03°.

0	19.52	33.48	5.31	415	0	19.52	33.48	5.31	23.75	415	0.00
12	18.98	33.37	5.55	411	10	19.04	33.38	5.53	23.80	411	0.04
31	16.96	33.40	5.59	362	20	18.30	33.38	5.57	23.98	394	0.08
51	14.00	33.34	5.55	304	30	17.10	33.40	5.59	24.28	365	0.12
74	12.76	33.42	4.89	274	50	14.08	33.34	5.56	24.91	305	0.19
97	12.02	33.52	4.31	253	75	12.74	33.42	4.86	25.25	273	0.26
120	11.22	33.55	4.15	237	100	11.93	33.53	4.27	25.48	251	0.33
157	10.42	33.72	3.27	201	150	10.58	33.68	3.43	25.84	217	0.44
193	9.76	33.88	2.64	188	200	9.67	33.90	2.56	26.17	186	0.55
239	9.30	34.04	2.19	169	250	9.20	34.08	2.10	26.38	165	0.64
285	8.91	34.18	1.75	153	300	8.75	34.20	1.61	26.56	149	0.72
384	7.84	34.28	0.97	130							

87.40

STRANGER; October 24, 1958; 0645 GCT; 33°40'N, 118°58.5'W; sounding, 400 fm; wind, 270°, force 2; weather, cloudy; sea, moderate; wire angle, 03°.

0	20.32	33.63	5.19	425	0	20.32	33.63	5.19	23.66	425	0.00
11	20.31	33.67	5.08	421	10	20.31	33.66	5.09	23.68	422	0.04
31	16.91	33.37	6.02	363	20	20.23	33.67	5.09	23.70	420	0.08
40	16.15	33.37	5.92	346	30	17.02	33.37	6.01	24.28	365	0.12
50	15.06	33.30	5.83	328	50	15.06	33.30	5.83	24.67	328	0.19
59	14.04	33.37	5.47	302	75	12.10	33.42	4.87	25.37	262	0.27
69	13.14	33.40	5.18	282	100	11.28	33.65	3.86	25.69	231	0.33
82	11.80	33.44	4.74	255	150	9.73	33.80	3.25	26.08	194	0.44
96	11.46	33.63	3.94	235	200	8.83	33.98	2.64	26.36	167	0.53
110	10.62	33.68	3.76	217	250	8.39	34.16	2.09	26.58	147	0.61
132	10.14	33.80	3.26	200	300	8.00	34.15	1.70	26.63	142	0.68
159	9.40	33.80	3.24	189	400	7.00	34.25	0.96	26.85	121	0.82
192	8.90	33.94	2.76	171	500	6.54	34.32	0.62	26.97	110	0.94
238	8.44	34.16	2.21	148							
313	7.90	34.15	1.60	140							
407	6.96	34.26	0.93	120							
531	6.42	34.33	0.56	108							

87.45

STRANGER; October 24, 1958; 0307, 0341 GCT; 33°30'N, 119°19'W; sounding, 850 fm; wind, 310°, force 1; weather, cloudy; sea, moderate; wire angle, 04, 02°.

2	17.40	33.46	5.61	367	0	(17.40)	(33.46)	(5.61)	(24.26)	(367)	(0.00)
12	17.19	33.43	5.48	365	10	17.22	33.43	5.50	24.28	365	0.04
31	15.23	33.40	5.39	324	20	16.80	33.41	5.43	24.36	357	0.07
					30	15.33	33.40	5.39	24.70	325	0.11
51	12.38	33.40	4.74	269	50	12.49	33.40	4.81	25.28	270	0.17
60	11.50	33.42	4.45	251	75	10.88	33.55	4.07	25.69	231	0.23
69	11.14	33.53	4.21	237	100	10.15	33.59	3.78	25.85	216	0.29
83	10.55	33.57	3.92	224	150	9.34	33.87	2.66	26.20	182	0.39
96	10.28	33.58	3.86	219	200	8.86	34.00	2.30	26.38	165	0.48
110	9.82	33.65	3.48	206	250	8.40	34.16	1.43	26.58	147	0.55
132	9.52	33.76	3.11	193	300	8.00	34.24	1.09	26.70	135	0.63
159	9.24	33.93	2.54	177	400	7.30	34.27	0.69	26.83	123	0.76
191	8.94	33.98	2.38	168	500	6.69	34.31	0.47	26.94	113	0.88
237	8.50	34.14	1.58	150							
311	7.92	34.25	1.04	133							
406	7.23	34.27	0.68	123							
530	6.46	34.32	0 41	109							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	ΔD dyn. m
87.55	STRANGER; October 23, 1958; 2120 GCT; 33°09'N, 120°03'W; sounding, 700 fm; wind, 310°, force 2; weather, overcast; sea, very rough; wire angle, 03°.										
4	18.55	33.51	5.22	390	0	18.6	(33.51)	(5.22)	(24.00)	(392)	(0.00)
13	18.45	33.51	5.52	388	10	18.49	33.51	5.40	24.04	388	0.04
32	15.33	33.40	5.66	326	20	18.23	33.51	5.59	24.10	382	0.08
41	13.60	33.37	5.38	294	30	16.70	33.45	5.66	24.42	352	0.11
51	12.68	33.41	5.06	273	50	12.78	33.40	5.09	25.22	276	0.18
60	11.80	33.40	4.59	258	75	10.65	33.53	4.08	25.70	230	0.24
69	11.04	33.49	4.27	238	100	9.51	33.62	4.05	25.98	204	0.30
82	10.27	33.57	3.95	220	150	8.74	33.87	3.40	26.29	174	0.39
95	9.64	33.60	4.12	207	200	8.30	34.02	2.17	26.48	156	0.47
109	9.33	33.72	3.83	193	250	7.94	34.12	1.64	26.62	143	0.55
131	8.91	33.80	3.75	181	300	7.76	34.16	1.41	26.68	138	0.62
159	8.70	33.89	3.10	171	400	7.09	34.23	0.78	26.82	124	0.76
190	8.40	34.00	2.31	159	500	6.41	34.31	0.51	26.98	109	0.88
237	7.96	34.11	1.71	144							
311	7.71	34.18	1.37	135							
405	7.02	34.24	0.73	122							
529	6.20	34.34	0.47	104							
87.60	STRANGER; October 23, 1958; 1820 GCT; 33°00'N, 120°21'W; sounding, 500 fm; wind, 320°, force 2; weather, overcast; sea, slight; wire angle, 06°.										
0	18.09	33.48	5.54	382	0	18.09	33.48	5.54	24.10	382	0.00
11	18.08	33.46	5.63	383	10	18.08	33.48	5.61	24.10	382	0.04
30	18.01	33.48	5.96	380	20	18.06	33.47	5.81	24.11	381	0.08
40	17.31	33.46	5.72	365	30	18.01	33.48	5.96	24.12	380	0.11
49	16.37	33.40	5.60	348	50	16.29	33.40	5.60	24.49	345	0.19
58	14.54	33.37	5.80	312	75	13.74	33.45	5.70	25.07	290	0.27
67	14.28	33.40	5.80	305	100	12.03	33.48	5.32	25.43	256	0.34
81	13.18	33.48	5.53	277	150	9.38	33.70	3.88	26.06	196	0.45
94	12.42	33.48	5.40	264	200	8.49	34.01	2.30	26.44	160	0.54
108	11.14	33.48	5.13	240	250	7.89	34.13	1.93	26.63	142	0.62
129	9.72	33.60	4.35	208	300	7.39	34.17	1.55	26.74	132	0.69
157	9.26	33.73	3.69	192	400	6.76	34.27	0.96	26.90	116	0.82
188	8.66	33.96	2.43	166	500	6.09	34.33	0.68	27.03	104	0.93
233	8.02	34.11	2.06	146							
307	7.34	34.18	1.49	131							
400	6.76	34.27	0.96	116							
524	5.96	34.34	0.60	101							
87.70	STRANGER; October 23, 1958; 0843 GCT; 32°36'N, 121°00'W; sounding, 2150 fm; wind, 310°, force 1; weather, overcast; sea, moderate; wire angle, 00°.										
3	18.03	33.42	5.36	384	0	(18.03)	(33.42)	(5.36)	(24.08)	(384)	(0.00)
12	18.05	33.42	5.43	385	10	18.05	33.42	5.39	24.07	385	0.04
32	17.97	33.50	5.42	378	20	18.02	33.45	5.45	24.10	382	0.08
41	18.02	33.48	5.32	380	30	17.99	33.46	5.44	24.14	378	0.11
51	15.52	33.33	5.92	335	50	15.60	33.33	5.91	24.58	337	0.19
60	15.22	33.35	5.91	328	75	14.31	33.37	5.79	24.88	308	0.27
70	14.72	33.36	5.81	316	100	11.72	33.48	5.03	25.48	252	0.34
83	14.11	33.48	5.62	296	150	9.26	33.71	4.00	26.09	193	0.45
97	11.98	33.48a)	5.04	255	200	8.40	33.96	2.52	26.42	162	0.54
111	11.04	33.48	4.92	239	250	7.60	34.06	2.03	26.61	144	0.62
134	9.86	33.57	4.48	213	300	7.04	34.11	1.66	26.74	132	0.69
162	8.89	33.82	3.59	179	400	6.13	34.20	0.89	26.92	114	0.82
194	8.52	33.94	2.61	165	500	5.60	34.26	0.41	27.05	102	0.93
241	7.74	34.04	2.10	146							
317	6.88	34.13	1.52	128							
410	6.02	34.21	0.79	112							
532	5.54	34.27	0.37	101							

a) Salinity bottle number was not recorded on the data sheet. Since standard handling and titrating procedures were used, this salinity value is assumed to be listed correctly.

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OBSERVED					INTERPOLATED				COMPUTED			
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m	

STRANGER; October 23, 1958; 0348 GCT; 32°18'N, 121°42'W; sounding, 2100 fm; wind, calm; weather, overcast; sea, moderate; wire angle, 02°. 87.80

0	18.20	33.51	5.38	382	0	18.20	33.51	5.38	24.10	382	0.00	
11	18.18	33.51	5.40	382	10	18.19	33.51	5.39	24.10	382	0.04	
31	18.15	33.55	5.35	378	20	18.18	33.53	5.39	24.12	380	0.08	
40	18.24	33.58	5.30	378	30	18.18	33.54	5.38	24.14	379	0.11	
50	15.09	33.56	5.15	310	50	15.09	33.56	5.15	24.86	310	0.18	
59	12.39	33.53	4.17	259	75	10.89	33.62	3.50	25.73	227	0.25	
68	11.44	33.58	3.65	239	100	9.37	33.79	2.99	26.14	189	0.30	
82	10.27	33.68	3.32	212	150	8.69	34.00	2.32	26.40	164	0.39	
95	9.53	33.77	3.05	193	200	8.19	34.09	1.82	26.55	149	0.47	
109	9.16	33.83	2.89	183	250	7.40	34.14	1.75	26.71	134	0.54	
131	8.82	33.93	2.64	171	300	7.02	34.19	1.26	26.80	126	0.61	
159	8.63	34.02	2.17	161	400	6.33	34.30	0.57	26.98	109	0.73	
191	8.32	34.08	1.82	152	500	5.65	34.33	0.42	27.09	98	0.84	
238	7.47	34.13	1.77	137								
312	6.98	34.20	1.10	124								
409	6.26	34.31	0.52	107								
533	5.44	34.33	0.40	96								

STRANGER; October 22, 1958; 2241 GCT; 32°00'N, 122°23'W; sounding, 2780 fm; wind, calm; weather, overcast; sea, moderate; wire angle, 05°. 87.90

0	17.90	33.28	5.30	392	0	17.90	33.28	5.30	24.01	392	0.00	
11	17.84	33.24	5.48	393	10	17.85	33.25	5.47	23.99	393	0.04	
31	17.77	33.30	5.44	387	20	17.80	33.26	5.47	24.01	391	0.08	
40	17.79	33.30	5.30	388	30	17.78	33.29	5.46	24.04	388	0.12	
49	15.42	33.38	5.86	330	50	15.38	33.38	5.85	24.66	329	0.19	
58	15.00	33.44	5.79	317	75	14.49	33.52	5.68	24.97	300	0.27	
67	14.75	33.48	5.62	309	100	11.88	33.48	5.02	25.45	254	0.34	
81	14.25	33.55	5.70	293	150	9.41	33.67	3.92	26.03	198	0.45	
94	12.00	33.46	5.11	257	200	8.57	33.91	3.00	26.35	168	0.55	
107	11.41	33.52	4.91	243	250	7.95	34.05	2.25	26.56	148	0.63	
129	10.15	33.55	4.58	219	300	7.30	34.09	1.86	26.68	138	0.70	
156	9.24	33.71	3.78	193	400	6.34	34.22	0.89	26.92	115	0.83	
187	8.72	33.86	3.24	174	500	5.80	34.32	0.50	27.06	101	0.94	
232	8.15	34.04	2.44	152								
306	7.22	34.09	1.79	136								
400	6.34	34.22	0.89	115								
523	5.72	34.34	0.45	98								

STRANGER; October 21, 1958; 0515 GCT; 33°28.5'N, 117°46.5'W; sounding, 400 fm; wind, 210°, force 3; weather, partly cloudy; sea, slight; wire angle, 00°. 90.28

0	20.68	33.51	5.43	443	0	20.68	33.51	5.43	23.46	443	0.00	
11	20.67	33.48	5.20	445	10	20.67	33.48	5.19	23.44	444	0.04	
31	16.02	33.27	5.85	351	20	20.08	33.43	5.30	23.56	434	0.09	
50	14.16	33.29	5.74	311	30	16.17	33.27	5.83	24.40	354	0.13	
74	13.04	33.49	4.60	274	50	14.16	33.29	5.74	24.85	311	0.19	
97	12.35	33.68	3.10	248	75	13.03	33.49	4.59	25.24	274	0.27	
121	11.56	33.78	2.83	226	100	12.25	33.70	3.06	25.55	245	0.33	
157	10.75	33.86	2.79	206	150	10.87	33.85	2.80	25.92	208	0.45	
193	10.10	33.97	2.21a)	187	200	9.98	33.98	2.21	26.18	185	0.55	
239	9.21	34.05	2.12	168	250	9.07	34.06	2.11	26.39	165	0.64	
285	8.54	34.09	1.75	154	300	8.38	34.11	1.62	26.54	150	0.72	
382	7.68	34.23	0.99	132								

a) Alternate value, 2.08 ml/L, not used in interpolation.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m

90.30 STRANGER; October 21, 1958; 0742, 0815 GCT; 33°24.5'N, 117°55'W; sounding, 350 fm; wind, 210°, force 3; weather, partly cloudy; sea, moderate; wire angle, 00°, 01°.

0	20.76	33.58a)	5.38	440	0	20.76	33.58	5.38	23.50	440	0.00
11	20.74	33.60	5.40	438	10	20.74	33.60	5.40	23.52	438	0.04
30	19.51	33.40	5.63	422	20	20.21	33.51	5.52	23.60	430	0.09
39	16.46	33.30	5.99	358	30	19.51	33.40	5.63	23.69	422	0.13
49	15.01	33.29	6.28	328	50	14.92	33.29	6.28	24.70	326	0.20
58	14.04	33.32	6.08	306	75	13.40	33.55	4.82	25.21	277	0.28
					100	11.84	33.64	3.93	25.58	242	0.35
67	14.01	33.51	5.23	292	150	10.86	33.86	2.93	25.92	208	0.46
81	12.68	33.57	4.49	262	200	9.67	33.98	2.80	26.23	180	0.56
95	11.98	33.61	4.05	246	250	8.72	34.06	2.35	26.44	160	0.65
108	11.64	33.69	3.66	234	300	8.36	34.18	1.94	26.60	145	0.72
131	11.30	33.78	2.90	221	400	7.30	34.31	1.06	26.86	120	0.86
158	10.70	33.89	2.96	203	500	6.39	34.35	0.57	27.01	106	0.98
190	9.95	33.96	2.89	186							
236	8.86	34.04	2.48	163							
311	8.24	34.20	1.85	142							
405	7.23	34.32	0.98	119							
530	6.10	34.36	0.44	101							

90.37 STRANGER; October 21, 1958; 1200, 1233 GCT; 33°10.5'N, 118°23.5'W; sounding, 780 fm; wind, 180°, force 3; weather, partly cloudy; sea, moderate; wire angle, 02°, 02°.

0	21.23	33.59	4.86	451	0	21.23	33.59	4.86	23.38	451	0.00
11	21.22	33.60	5.05	450	10	21.22	33.60	5.00	23.38	451	0.04
31	17.62	33.39a)	5.68	377	20	21.20	33.60	5.10	23.39	450	0.09
40	15.41	33.32	5.70	334	30	18.10	33.42	5.64	24.05	387	0.13
					50	14.60	33.34	5.52	24.80	316	0.20
68	13.26	33.40	4.93	285	75	12.62	33.40	4.81	25.25	273	0.28
82	12.44	33.42	4.60	268	100	11.17	33.54	4.17	25.63	237	0.34
96	11.28	33.52	4.25	240	150	9.85	33.83	2.87	26.08	194	0.45
109	10.87	33.57	3.85	230	200	8.85	34.00	2.40	26.38	166	0.54
132	10.18	33.69	3.27	209	250	8.18	34.12	1.80	26.58	147	0.62
158	9.72	33.89	2.73	187	300	7.88	34.14	1.53	26.64	141	0.70
189	9.01	33.96	2.48	172	400	7.23	34.24	0.95	26.82	124	0.84
235	8.33	34.11	1.95	150	500	6.60	34.30	0.55	26.94	112	0.96
309	7.84	34.15	1.49	140							
403	7.20	34.25	0.91	124							
525	6.42	34.31	0.46	110							

90.45 STRANGER; October 21, 1958; 1658, 1716 GCT; 32°55.5'N, 118°56.5'W; sounding, 1105 fm; wind, 160°, force 3; weather, partly cloudy; sea, rough; wire angle, 15°, 17°.

0	20.46	33.76b)	5.20	419	0	20.46	33.76	5.20	23.72	419	0.00
11	20.45	33.75	5.14	419	10	20.45	33.75	5.15	23.72	419	0.04
29	20.42	33.73	5.19	420	20	20.43	33.74	5.16	23.70	420	0.08
43	18.33	33.49	5.56	386	30	20.42	33.73	5.20	23.70	420	0.13
52	15.70	33.32	5.93	340	50	16.15	33.34	5.90	24.46	348	0.20
61	14.24	33.34	5.87	308	75	13.42	33.38	5.45	25.08	289	0.28
70	13.78	33.37	5.62	297	100	10.73	33.48	4.49	25.66	234	0.35
					150	9.25	33.76	3.08	26.12	190	0.46
89	11.40	33.41	4.70	250	200	8.61	34.02	2.22	26.44	160	0.55
101	10.62	33.48	4.44	232	250	8.04	34.17	1.84	26.64	141	0.62
114	10.23	33.66	3.78	212	300	7.82	34.25	1.27	26.73	132	0.69
135	9.92	33.70	3.58	204	400	7.00	34.30	0.72	26.89	118	0.82
161	9.08	33.83	2.94	182	500	6.26	34.35	0.47	27.03	104	0.94
194	8.68	34.00	2.28	163							
243	8.09	34.14	1.89	144							
317	7.78	34.27	1.11	130							
412	6.88	34.30	0.68	116							
546	6.00	34.38	0.37	99							

a) Loose bottle cap; value falls on property curve.

b) Salinity bottle number was not recorded on the data sheet. Since standard handling and titrating procedures were used, this salinity value is assumed to be listed correctly.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^{-5} cm^3/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^{-5} cm^3/g	ΔD dyn. m

90.50

STRANGER; October 21, 1958; 2011 GCT; 32°45.5'N, 119°16'W; sounding, 235 fm; wind, 140°, force 4; weather, partly cloudy; sea, rough; wire angle, 14°.

2	19.16	33.57	5.25	400	0	(19.16)	(33.57)	(5.25)	(23.91)	(400)	(0.00)
12	19.08	33.55	5.27	400	10	19.09	33.55	5.27	23.92	400	0.04
31	18.48	33.51	5.43	389	20	19.02	33.54	5.29	23.92	399	0.08
49	14.23	33.33	5.80	309	30	18.60	33.51	5.41	24.01	391	0.12
71	12.35	33.40	4.89	268	50	14.20	33.33	5.80	24.88	308	0.19
93	11.36	33.51	4.34	242	75	12.19	33.42	4.76	25.35	264	0.26
115	10.12	33.69	3.70	208	100	11.00	33.56	4.16	25.68	232	0.32
149	9.30	33.83	3.07	185	150	9.26	33.83	3.03	26.18	185	0.43
184	8.68	34.01	2.37	162	200	8.48	34.06	2.15	26.48	156	0.51
228	8.20	34.13	1.87	146	250	8.02	34.14	1.72	26.62	143	0.59
272	7.82	34.14	1.58	140	300	7.60	34.15	1.41	26.68	137	0.66
365	7.17	34.18	1.06	128							

90.55

STRANGER; October 21, 1958; 2324 GCT; 32°34'N, 119°34.5'W; sounding, 600 fm; wind, 180°, force 1; weather, cloudy; sea, very rough; wire angle, 10°.

2	19.26	33.64	5.22	398	0	(19.26)	(33.64)	(5.22)	(23.94)	(398)	(0.00)
12	19.10	33.53	5.22	402	10	19.12	33.56	5.22	23.90	402	0.04
31	19.00	33.53	5.15	400	20	19.05	33.53	5.20	23.90	402	0.08
40	18.08	33.48	5.45	382	30	19.01	33.53	5.17	23.92	400	0.12
50	13.74	33.39	5.51	295	50	13.74	33.39	5.51	25.02	295	0.19
59	13.54	33.35	5.43	294	75	11.80	33.44	4.85	25.43	256	0.26
68	12.46	33.41	4.99	270	100	10.71	33.50	4.32	25.68	232	0.32
82	11.35	33.45	4.75	246	150	9.21	33.76	3.08	26.13	189	0.43
96	10.90	33.48	4.44	237	200	8.50	34.04	1.98	26.47	157	0.51
109	10.22	33.57	4.09	219	250	7.77	34.12	1.61	26.64	140	0.59
132	9.64	33.66	3.44	203	300	7.24	34.20	1.16	26.78	128	0.66
158	9.01	33.80	2.87	183	400	6.69	34.29	0.68	26.92	114	0.79
191	8.62	34.02	2.06	161	500	6.22	34.32	0.54	27.01	106	0.90
236	7.92	34.10	1.74	144							
309	7.16	34.22	1.07	125							
402	6.65	34.30	0.65	113							
523	6.12	34.33	0.52	104							

90.60

STRANGER; October 22, 1958; 0239 GCT; 32°24'N, 119°56'W; sounding, 675 fm; wind, 170°, force 3; weather, cloudy; sea, very rough; wire angle, 08°.

2	19.21	33.49	5.26	408	0	(19.21)	(33.49)	(5.26)	(23.84)	(408)	(0.00)
12	19.03	33.48	5.17	404	10	19.06	33.48	5.19	23.86	405	0.04
31	17.22	33.41	5.72	366	20	19.00	33.48	5.18	23.88	403	0.08
45	14.09	33.30	5.85	309	30	18.40	33.45	5.35	24.04	388	0.12
55	12.94	33.33	5.19	284	50	13.54	33.31	5.58	25.00	297	0.19
64	11.88	33.42	4.39	258	75	11.03	33.48	3.94	25.60	240	0.26
73	11.13	33.48	3.95	240	100	10.22	33.62	3.83	25.85	216	0.31
92	10.42	33.54	3.91	224	150	8.97	33.86	2.60	26.26	178	0.41
106	10.01	33.71	3.74	205	200	8.28	34.10	1.91	26.55	150	0.50
119	9.52	33.72	3.15	196	250	7.69	34.11	1.60	26.64	141	0.57
143	9.06	33.84	2.71	181	300	7.18	34.15	1.28	26.76	130	0.64
170	8.60	33.96	2.35	165	400	6.29	34.25	0.62	26.95	112	0.77
207	8.20	34.11	1.83	148	500	5.78	34.30	0.30	27.05	102	0.88
258	7.56	34.11	1.56	139							
338	6.76	34.23	1.00	119							
437	6.06	34.26	0.50	108							
573	5.50	34.34	0.28	96							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

90.70 STRANGER; October 22, 1958; 0737 GCT; 32°04'N, 120°38'W; sounding, 2100 fm; wind, 230°, force 2; weather, overcast; sea, very rough; wire angle, 00°.

0	18.05	33.34	5.26	391	0	18.05	33.34	5.26	24.01	391	0.00
11	18.04	33.34	5.29	391	10	18.03	33.34	5.28	24.01	391	0.04
30	17.96	33.33	5.09	389	20	18.00	33.34	5.20	24.02	390	0.08
45	16.15	33.30	5.75	351	30	17.96	33.33	5.09	24.03	389	0.12
54	14.69	33.26	5.85	324	50	15.33	33.28	5.82	24.60	335	0.19
63	13.94	33.24	5.84	310	75	13.80	33.35	5.40	24.98	299	0.27
72	14.09	33.31	5.53	308	100	10.70	33.46	4.78	25.64	236	0.34
91	11.76	33.41	4.99	256	150	8.92	33.76	3.53	26.18	184	0.44
105	10.33	33.48	4.68	227	200	8.20	33.98	2.57	26.46	158	0.53
119	9.70	33.58	4.31	210	250	7.69	34.07	1.99	26.61	144	0.61
142	9.03	33.71	3.70	190	300	7.04	34.10	1.56	26.73	132	0.68
170	8.62	33.87	3.20	172	400	6.21	34.16	0.85	26.88	118	0.81
207	8.13	34.00	2.43	155	500	5.81	34.29	0.44	27.04	103	0.92
260	7.57	34.09	1.86	141							
339	6.50	34.11	1.26	125							
439	6.08	34.23	0.58	111							
577	5.48	34.34	0.36	96							

90.80 STRANGER; October 22, 1958; 1218 GCT; 31°44'N, 121°17'W; sounding, 2100 fm; wind, 240°, force 1; weather, overcast; sea, rough; wire angle, 07°.

0	17.82	33.40	5.28	381	0	17.82	33.40	5.28	24.12	381	0.00
11	17.86	33.44	5.24	380	10	17.86	33.43	5.26	24.13	380	0.04
30	17.79	33.47	5.33	376	20	17.82	33.46	5.30	24.16	377	0.08
39	17.79	33.42	5.24	379	30	17.79	33.47	5.33	24.17	376	0.11
49	14.93	33.31	5.74	324	50	14.90	33.31	5.74	24.71	324	0.18
57	14.66	33.40	5.76	313	75	13.20	33.39	5.49	25.13	284	0.26
66	13.74	33.35	5.65	298	100	10.54	33.42	4.60	25.65	235	0.33
80	12.96	33.40	5.40	278	150	8.79	33.87	2.93	26.29	174	0.43
93	10.88	33.41	4.72	242	200	8.15	34.01	2.29	26.50	154	0.51
106	10.44	33.48	4.36	229	250	7.55	34.10	1.70	26.66	139	0.59
127	9.52	33.58	3.69	207	300	7.18	34.16	1.20	26.76	130	0.66
154	8.72	33.92	2.83	169	400	6.58	34.29	0.61	26.95	112	0.78
186	8.34	33.98	2.41	160	500	5.89	34.32	0.40	27.05	102	0.90
231	7.76	34.07	1.97	145							
305	7.12	34.18	1.13	128							
399	6.58	34.29	0.60	112							
522	5.78	34.33	0.36	100							

90.90 STRANGER; October 22, 1958; 1722 GCT; 31°24'N, 121°58'W; sounding, 2700 fm; wind, 240°, force 2; weather, overcast; sea, rough; wire angle, 04°.

0	18.68	33.44	5.60	399	0	18.68	33.44	5.60	23.93	399	0.00
12	18.68	33.42	5.35	400	10	18.70	33.44	5.36	23.92	400	0.04
31	18.67	33.44	5.42	400	20	18.70	33.44	5.36	23.92	400	0.08
54	18.71	33.44	5.85	400	30	18.70	33.44	5.41	23.92	400	0.12
64	18.70	33.44	5.47	400	50	18.70	33.44	5.81	23.92	400	0.20
73	16.04	33.35	6.01	345	75	15.80	33.35	6.01	24.54	340	0.29
82	15.20	33.35	6.54u	327	100	13.95	33.49	5.98	25.04	293	0.37
95	14.38	33.46	6.00	302	150	9.92	33.60	4.67	25.89	212	0.50
109	13.08	33.52	5.88	273	200	8.94	33.87	3.42	26.26	176	0.60
128	11.22	33.49	5.48	241	250	8.29	34.08	2.41	26.53	152	0.68
145	10.18	33.57	4.71	218	300	7.61	34.11	2.16	26.65	140	0.76
167	9.37	33.70	4.60	196	400	6.58	34.17	1.27	26.85	122	0.90
191	9.04	33.83	3.85	181	500	5.79	34.26	0.86	27.02	105	1.02
236	8.47	34.07	2.53	155							
311	7.49	34.11	2.08	138							
405	6.52	34.18	1.20	120							
529	5.60	34.29	0.78	101							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
STRANGER; October 20, 1958; 1603, 1623 GCT; 32°55'N, 117°22'W; sounding, 290 fm; wind, 180°, force 3; weather, cloudy; sea, moderate; wire angle, 00°, 00°.											93.27
0	20.49	33.49a)	5.18	439	0	20.49	33.49	5.18	23.50	439	0.00
11	20.48	33.47	5.18	440	10	20.48	33.47	5.18	23.49	440	0.04
30	16.72	33.47	5.57	351	20	19.80	33.47	5.33	23.67	424	0.09
					30	16.72	33.47	5.57	24.43	351	0.12
50	15.15	33.47	5.43	318	50	15.15	33.47	5.43	24.78	318	0.19
74	13.46	33.58	4.42	276	75	13.42	33.58	4.41	25.22	275	0.27
97	12.46	33.64	4.04	253	100	12.33	33.64	3.97	25.49	250	0.34
120	11.58	33.68	3.45	234	150	11.12	33.85	2.64	25.87	214	0.45
157	11.00	33.90	2.52	207	200	9.67	33.94	2.70	26.20	182	0.55
194	9.79	33.93	2.71	185	250	8.92	34.11	2.10	26.45	159	0.64
239	9.01	34.09	2.20	161	300	8.38	34.17	1.58	26.59	146	0.72
285	8.56	34.15	1.68	150							
335	7.94	34.22	1.39	136							
HORIZON; October 13, 1958; 2202, 2232 GCT;b) 32°50'N, 117°32'W; sounding, 450 fm; wind, 300°, force 2; weather, fog; sea, moderate; wire angle, 14°, 18°.											93.30
529	6.25	34.26	0.25	111							
539	6.08	34.26	0.26	108							
548	6.00	34.27	0.16	107							
558	5.94	34.31u	0.15								
568	5.82	34.29	0.23u	104							
578	5.78	34.29	0.13	102							
588	5.65	34.32	0.17	99							
598	5.58	34.31	0.19	98							
608	5.49	34.32	0.22	97							
618	5.47	34.31	0.18	98							
628	5.42	34.34	0.22								
628	5.40	34.33	0.21	94							
640	5.38	34.34	0.23	93							
649	5.23	34.34	-	93							
659	5.16	34.38	0.20	89							
669	5.04	34.38	0.24	88							
679	4.96	34.38	0.23	85							
689	4.92	34.40	0.26	85							
699	4.91	34.41	0.23	84							
709	4.85	34.40	0.23	83							
719	4.86	34.42	0.26	82							
728	4.82	34.40	0.25	83							
739	4.81	34.38u	0.23								

a) Salinity bottle numbers were not recorded on the data sheet. Since standard handling and titrating procedures were used, these salinity values are assumed to be in correct order.

b) Test cast.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10 cm/g	ΔD dyn. m
93.30	STRANGER; October 20, 1958; 1315 GCT; 32°50'N, 117°31.5'W; sounding, 565 fm; wind, 240°, force 2; weather, cloudy; sea, rough; wire angle, 03°.										
3	21.51	33.53	4.96	462	0	(21.51)	(33.53)	(4.96)	(23.26)	(462)	(0.00)
13	21.49a)	33.55	5.31	461	10	21.50	33.54	5.20	23.27	462	0.05
32	14.80	33.40	5.97	316	20	20.31	33.54	5.56	23.32	456	0.09
41	13.87	33.51	5.56	289	30	16.55	33.42	5.91	24.43	351	0.13
50	13.33	33.55	4.85	275	50	13.33	33.55	4.85	25.23	275	0.20
59	12.68	33.54	4.53	264	75	12.42	33.62	4.05	25.46	253	0.26
68	12.60	33.59	4.42	258	100	12.17	33.73	3.12	25.60	240	0.32
82	12.25	33.66	3.65	247	150	11.41	33.88	2.62	25.84	216	0.44
96	12.16	33.71	3.14	242	200	10.28	33.96	2.70	26.11	191	0.54
109	12.10	33.78	3.01	236	250	9.12	34.07	2.65	26.40	164	0.63
131	11.74	33.84	2.82	224	300	8.30	34.15	2.01	26.58	146	0.72
159	11.28	33.89	2.54	213	400	7.28	34.25	1.27	26.80	125	0.86
191	10.54	33.94	2.69	196	500	6.61	34.33	0.72	26.97	110	0.98
238	9.35	34.05	2.71	170							
311	8.15	34.17	1.88	142							
406	7.24	34.25	1.24	124							
530	6.40	34.36	0.53	105							
93.40	STRANGER; October 20, 1958; 0720 GCT; 32°30'N, 118°12'W; sounding, 940 fm; wind, 320°, force 4; weather, clear; sea, very rough; wire angle, 00°.										
5	21.13	33.58	5.15	449	0	21.1	(33.58)	(5.15)	(23.41)	(448)	(0.00)
15	21.12	33.60	5.08	447	10	21.12	33.59	5.11	23.41	448	0.04
34	15.83	33.39	5.85	338	20	20.95	33.60	5.10	23.46	444	0.09
48	14.77	33.36	5.68	318	30	17.00	33.43	5.77	24.34	360	0.13
58	14.16	33.39	5.48	303	50	14.65	33.36	5.64	24.81	315	0.20
75	12.76	33.42	4.83	274	75	12.76	33.42	4.83	25.24	274	0.27
94	11.22	33.48	4.34	242	100	10.88	33.52	4.17	25.66	234	0.34
108	10.52	33.58	3.93	222	150	9.40	33.76	3.15	26.11	191	0.44
121	10.06	33.61	3.73	214	200	8.75	34.10	2.32	26.47	157	0.53
144	9.50	33.74	3.23	195	250	8.05	34.13	1.77	26.61	144	0.61
171	9.00	33.87	2.74	178	300	7.60	34.20	1.30	26.72	133	0.68
207	8.68	34.11	2.23	155	400	6.98	34.29	0.71	26.89	118	0.81
259	7.93	34.14	1.68	142	500	6.37	34.34	0.43	27.01	106	0.93
339	7.36	34.26	0.97	125							
438	6.76	34.31	0.58	113							
578	5.82	34.38	0.32	97							
93.50	STRANGER; October 20, 1958; 0101 GCT; 32°09'N, 118°46'W; sounding, 730 fm; wind, 310°, force 6; weather, partly cloudy; sea, high; wire angle, 07°.										
3	20.31	33.55	5.23	430	0	(20.31)	(33.55)	(5.23)	(23.60)	(430)	(0.00)
13	20.32	33.55	5.16	430	10	20.32	33.55	5.20	23.60	430	0.04
31	20.28	33.53	5.14	432	20	20.30	33.54	5.15	23.59	431	0.09
42	17.14	33.37	5.67	368	30	20.30	33.54	5.15	23.59	431	0.13
51	16.09	33.33	5.86	348	50	16.20	33.33	5.84	24.44	350	0.21
59	14.60	33.29	5.62	320	75	13.56	33.31	5.44	24.99	297	0.29
68	13.99	33.31	5.44	306	100	11.55	33.38	4.91	25.44	255	0.36
80	13.20	33.31	5.45	290	150	9.42	33.72	3.25	26.07	195	0.47
93	12.08	33.36	5.03	266	200	8.69	33.96	2.43	26.38	166	0.56
107	11.00	33.42	4.81	243	250	8.18	34.13	1.66	26.58	146	0.64
127	10.02	33.59	3.81	215	300	7.61	34.18	1.42	26.71	134	0.72
152	9.39	33.73	3.22	194	400	6.55	34.24	0.80	26.91	116	0.85
181	8.94	33.83	2.87	180	500	6.02	34.33	0.42	27.05	102	0.96
224	8.39	34.08	1.82	154							
294	7.68	34.18	1.44	136							
384	6.68	34.23	0.90	118							
502	6.02	34.34	0.39	102							

a) Alternate value, 20.80°C, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

93.60

STRANGER; October 19, 1958; 1907, 1927 GCT; 31°49'N, 119°31'W; sounding, 2100 fm; wind, 340°, force 6; weather, partly cloudy; sea, very rough; wire angle, 15°, 18°.

0	19.85	33.62	5.32	414	0	19.85	33.62	5.32	23.77	414	0.00
11	19.87	33.60	5.12	415	10	19.87	33.60	5.13	23.76	415	0.04
30	18.41	33.62	5.67	380	20	19.61	33.60	5.20	23.82	409	0.08
43	12.84	33.53	4.97	268	30	18.41	33.62	5.67	24.12	380	0.12
52	11.85	33.49	4.32	252	50	11.88	33.49	4.33	25.45	254	0.18
61	11.78	33.55	4.13	246	75	10.41	33.64	3.51	25.84	216	0.24
70	10.87	33.60	3.74	227	100	9.54	33.76	3.00	26.08	194	0.30
88	9.80	33.70	3.15	202	150	8.75	33.98	2.27	26.38	166	0.39
102	9.49	33.78	2.98	192	200	8.10	34.11	1.76	26.58	146	0.47
					250	7.59	34.20		26.72	133	0.54
111	9.28	33.79	2.92	188	300	7.25	34.19		26.78	129	0.61
133	8.92	33.89	2.50	174	400	6.50	34.26	0.57	26.92	114	0.73
158	8.66	34.03	2.14	160	500	5.75	34.31	0.37	27.07	100	0.84
192	8.20	34.09	1.84	149							
241	7.62	34.20	1.32	133							
317	7.14	34.18	1.56a)	128							
413	6.40	34.27	0.49	112							
547	5.47	34.33	0.36	96							

93.70

STRANGER; October 19, 1958; 1242 GCT; 31°23.5'N, 120°16'W; sounding, 2800 fm; wind, 340°, force 6; weather, partly cloudy; sea, rough; wire angle, 18°.

0	18.84	33.31	5.31	412	0	18.84	33.31	5.31	23.80	412	0.00
12	18.87	33.34	5.30	410	10	18.87	33.33	5.31	23.80	411	0.04
30	18.79	33.31	5.25	411	20	18.86	33.33	5.28	23.80	411	0.08
43	18.46	33.40	5.26	396	30	18.79	33.31	5.25	23.80	411	0.12
52	17.39	33.40	5.43	371	50	17.70	33.40	5.39	24.14	378	0.20
61	15.66	33.29	5.58	341	75	14.79	33.36	5.52	24.77	318	0.29
70	15.07	33.33	5.54	326	100	12.95	33.47	5.22	25.24	274	0.37
87	14.08	33.44	5.46	298	150	9.31	33.72	4.10	26.08	194	0.48
100	12.95	33.47	5.22	274	200	8.56	33.90	2.72	26.35	169	0.57
113	11.11	33.46	4.97	241	250	8.02	34.04	2.03	26.54	151	0.66
134	9.94	33.56	4.56	215	300	7.47	34.12	1.62	26.68	137	0.73
158	9.11	33.77	3.91	186	400	6.61	34.17	0.90	26.84	122	0.87
192	8.62	33.87	2.86	172	500	5.98	34.22		26.96	110	0.99
240	8.12	34.02	2.12	154							
313	7.36	34.14	1.49	134							
408	6.58	34.17	0.82	121							
539	5.72	34.25	0.92u	105							

93.80

STRANGER; October 19, 1958; 0706 GCT; 31°07'N, 120°56'W; sounding, 2100 fm; wind, 320°, force 6; weather, cloudy; sea, rough; wire angle, 09°.

0	19.04	33.30	5.60	417	0	19.04	33.30	5.60	23.73	417	0.00
11	19.06	33.33	5.56	416	10	19.06	33.32	5.55	23.75	416	0.04
30	19.04	33.30	5.74	417	20	19.05	33.32	5.65	23.75	416	0.08
45	19.07	33.43	5.87	408	30	19.04	33.30	5.75	23.73	417	0.12
54	16.38	33.40	6.31	349	50	18.89	33.43	5.96	23.87	405	0.21
63	15.52	33.42	6.54	329	75	14.74	33.40	6.50	24.82	314	0.30
72	14.94	33.40	6.54	318	100	12.40	33.46	5.55	25.34	265	0.37
91	13.52	33.48	5.95	284	150	9.52	33.56	4.56	25.92	209	0.49
105	11.81	33.44	5.35	255	200	8.61	33.84	3.20	26.30	174	0.59
118	10.94	33.39	5.13	244	250	7.80	33.95	2.88	26.50	154	0.67
142	9.78	33.50	4.75	217	300	7.15	34.02	2.27	26.64	141	0.75
169	9.04	33.69	4.02	191	400	6.28	34.15	0.91	26.87	119	0.88
207	8.50	33.86	3.05	171	500	5.72	34.23	0.59	27.01	106	1.00
257	7.65	33.96	2.88	152							
337	6.72	34.07	1.33	131							
435	6.05	34.18	0.74	114							
571	5.32	34.29	0.48	97							

a) Uncertain value; sample was drawn after some time delay and from partly empty Nansen bottle.

SIO

CCOFI
5810

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10 cm/g	ΔD dyn. m
93.90	STRANGER; October 19, 1958; 0107 GCT; 30°50'N, 121°35'W; sounding, 2248 fm; wind, 340°, force 6; weather, cloudy; sea, rough; wire angle, 17°.										
3	20.36	33.66	5.29	424	0	(20.36)	(33.66)	(5.29)	(23.67)	(424)	(0.00)
12	20.37	33.68	5.26	423	10	20.37	33.68	5.27	23.67	423	0.04
30	20.29	33.65	5.22	423	20	20.32	33.67	5.24	23.67	423	0.08
43	20.20	33.61	5.30	423	30	20.29	33.65	5.22	23.67	423	0.13
52	17.75	33.40	5.92	379	50	19.20	33.51	5.62	23.85	406	0.21
61	16.43	33.35	6.08	354	75	15.00	33.41	5.88	24.77	319	0.30
70	15.42	33.42	5.99	327	100	12.88	33.42	5.26	25.22	276	0.38
87	14.17	33.39	5.64	303	150	9.60	33.60	4.21	25.94	207	0.50
101	12.76	33.42	5.23	274	200	8.58	33.84	3.08	26.30	173	0.59
114	11.42	33.39	5.01	252	250	7.84	33.97	2.36	26.51	153	0.68
135	10.14	33.51	4.64	222	300	7.28	34.03	2.12	26.64	141	0.76
159	9.28	33.65	3.93	198	400	6.30	34.13	1.05	26.85	121	0.89
193	8.64	33.83	3.17	175	500	5.66	34.20	0.62	26.98	108	1.01
241	7.93	33.96	2.40	155							
315	7.08	34.05	2.03	137							
410	6.21	34.14	0.97	119							
542	5.42	34.22	0.48	104							
97.30	STRANGER; October 17, 1958; 0455 GCT; 32°15.5'N, 117°09'W; sounding, 40 fm; wind, 320°, force 2; weather, partly cloudy; sea, moderate; wire angle, 00°.										
0	17.87	33.44	5.59	380	0	17.87	33.44	5.59	24.13	380	0.00
10	17.86	33.49	5.61	376	10	17.86	33.49	5.61	24.17	376	0.04
29	14.14	33.60	4.42	287	20	16.91	33.55	5.38	24.45	349	0.07
38	13.50	33.68	3.75	269	30	14.03	33.61	4.32	25.13	285	0.10
53	12.95	33.69	3.33	258	50	13.09	33.69	3.42	25.38	261	0.16
97.32	PAOLINA-T; October 8, 1958; 0141 GCT;[a] 32°25'N, 117°25'W; sounding, 450 fm; wind, 240°, force 2; weather, clear; sea, slight; wire angle, 01°.										
433	6.92	34.23	0.86	121							
446	6.86	34.27	0.70	118							
456	6.89	34.29	0.68	117							
464	6.90	34.29	0.60	117							
474	6.85	34.30	0.59	115							
484	6.76	34.30	0.51	114							
494	6.65	34.34	0.44	110							
505	6.52	34.29u	0.40								
514	6.42	34.34	0.39	107							
524	6.32	34.32	0.32	107							
533	6.19	34.34	0.32	104							
543	6.12	34.34	0.31	103							
554	6.04	34.34	0.26	102							
564	5.92	34.34	0.28	101							
574	5.85	34.36	0.24	98							
584	5.82	34.36	0.28	98							
594	5.80	34.39	0.24	94							

a) Test cast.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

97.32

STRANGER; October 17, 1958; 0710, 0750 GCT;[a] 32°11.5'N, 117°17'W; sounding, 700 fm; wind, 320°, force 2; weather, partly cloudy; sea, moderate; wire angle, 07°, 05°.

342	7.35	34.16	1.29	132
352	7.31	34.18	-	130
361	7.16	34.18	1.28	128
371	7.10	34.21	-	126
380	7.06	34.21	1.13	125
389	6.97	34.22	-	124
399	6.96	34.21	-	123
408	6.91	34.22	-	122
418	6.82	34.21	-	122
427	6.73	34.25	-	117
437	6.59	34.25	-	116
446	6.55	34.25	-	115
472	6.31	34.31	-	108
482	6.28	34.31	-	108
491	6.30	34.30	-	107
501	6.24	34.33	-	107
510	6.12	34.36	-	105
521	6.08	34.33	-	101
530	6.03	34.34	-	104
539	5.94	34.34	-	102
549	5.92	34.33	-	101
559	5.85	34.38	-	100
568b)	5.88	34.34	-	97

97.32

STRANGER; October 17, 1958; 0848 GCT; 32°11.5'N, 117°17'W; sounding, 700 fm; wind, 320°, force 2; weather, partly cloudy; sea, moderate; wire angle, 07°.

0	20.77	33.58	5.37	440	0	20.77	33.58	5.37	23.50	440	0.00
12	20.74	33.57	5.31	440	10	20.75	33.57	5.33	23.50	440	0.04
31	16.08	33.50	5.65	335	20	20.63	33.56	5.30	23.52	438	0.09
40	14.99	33.48	5.26	314	30	16.72	33.51	5.62	24.46	348	0.13
50	14.46	33.51	5.13	300	50	14.46	33.51	5.13	24.96	300	0.19
59	13.84	33.44	5.38	294	75	12.63	33.53	4.91	25.35	264	0.26
68	13.14	33.53	5.11	273	100	11.42	33.59	4.30	25.62	238	0.33
82	12.15	33.53	4.73	255	150	9.90	33.75	3.40	26.02	200	0.44
95	11.58	33.57	4.43	242	200	9.21	33.98	2.29	26.31	172	0.53
109	11.12	33.64	4.01	228	250	8.78	34.10	1.82	26.47	157	0.62
131	10.38	33.67	3.77	214	300	7.90	34.14	1.47	26.64	141	0.69
158	9.70	33.80	3.21	193	400	6.78	34.20	0.87	26.84	122	0.83
190	9.27	33.96	2.38	175	500	6.18	34.27	0.74	26.98	108	0.95
236	8.94	34.08	1.94	161							
309	7.76	34.14	1.47	139							
403	6.76	34.20	0.86	121							
528	6.04	34.29	0.72	106							

a) Test cast.
b) Possible pretrip.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

97.40 STRANGER; October 17, 1958; 1415 GCT; 31°55.5'N, 117°50'W; sounding, 1000 fm; wind, 320°, force 3; weather, partly cloudy; sea, rough; wire angle, 00°.

0	21.58	33.66	5.10	455	0	21.58	33.66	5.10	23.34	455	0.00
12	21.46	33.69	5.33	450	10	21.47	33.68	5.30	23.37	452	0.04
32	19.56	33.55a)	5.49	412	20	20.98	33.65	5.45	23.50	440	0.09
43p	16.05	33.37	6.28	344	30	19.70	33.56	5.47	23.76	415	0.13
54p	15.02	33.31	6.37	327	50	15.38	33.33	6.37	24.63	332	0.21
75p	13.50	33.24	5.93	301	75	13.50	33.24	5.93	24.96	301	0.29
91p	12.61	33.33	5.62	278	100	11.78	33.39	5.15	25.40	258	0.36
108p	11.01	33.44	4.70	241	150	9.88	33.76	3.80	26.03	199	0.47
134p	10.15	33.61	4.24	215	200	9.10	33.95	2.72	26.30	174	0.57
164p	9.70	33.84	3.35	191	250	8.61	34.13	2.10	26.52	152	0.65
205p	9.02	33.96	2.62	171	300	8.02	34.18	1.58	26.65	140	0.73
257p	8.53	34.14	2.04	151	400	6.85	34.23	0.83	26.86	121	0.86
336p	7.54	34.20	1.27	132	500	5.05	34.28	0.53	27.00	107	0.98
435p	6.52	34.24	0.68	115							
572p	5.74	34.31	0.43	101							

97.50 STRANGER; October 17, 1958; 2152 GCT; 31°36'N, 118°29'W; sounding, 1500 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 13°.

0	20.08	33.36	5.44	438	0	20.08	33.36	5.44	23.52	438	0.00
11	19.68	33.37	5.43	428	10	19.72	33.37	5.43	23.61	429	0.04
30	19.57	33.45	4.77u	420	20	19.63	33.40		23.66	424	0.08
39	18.85	33.49	5.70	399	30	19.57	33.45		23.70	420	0.13
49	16.28	33.40	6.01	347	50	16.23	33.40	6.03	24.48	346	0.20
58	15.74	33.39	6.18	336	75	14.38	33.34	6.27	24.85	311	0.29
67	14.72	33.40	6.41	313	100	12.40	33.37	5.58	25.27	271	0.36
80	14.18	33.30	6.14	310	150	9.15	33.65	4.09	26.06	196	0.48
93	13.16	33.37	5.67	285	200	8.40	34.08	2.67	26.51	153	0.56
107	11.60	33.37	5.51	257	250	7.53	34.06	1.98	26.62	143	0.64
129	9.80	33.55	4.34	214	300	7.30	34.12	1.60	26.70	135	0.71
155	9.12	33.75	3.79	188	400	6.49	(34.18)	0.88	(26.87)	(119)	(0.84)
186	8.69	34.11	2.84	155	500	5.98		0.52			
231	7.76	34.00	2.24	150							
304	7.26	34.12	1.54	134							
397	6.52	34.18	0.90	120							
520	5.90	34.13u	0.49								

97.60 STRANGER; October 18, 1958; 0346 GCT; 31°18'N, 119°10.5'W; sounding, 1000 fm; wind, 320°, force 4; weather, fog; sea, moderate; wire angle, 06°.

0	19.98	33.51	5.30	425	0	19.98	33.51	5.30	23.66	425	0.00
11	20.00	33.55	5.04	423	10	20.00	33.53	5.09	23.67	424	0.04
30	19.75	33.50	5.84	421	20	19.93	33.54	5.30	23.68	422	0.08
40	16.19	33.34	4.83u	349	30	19.75	33.50	5.84	23.69	421	0.13
50	14.61	33.33	6.65u	317	50	14.61	33.33		24.79	317	0.20
59	13.26	33.34	4.95	289	75	11.65	33.42	4.37	25.45	254	0.27
68	12.12	33.39	4.48	264	100	10.47	33.50	3.83	25.72	228	0.33
82	11.23	33.44	4.26	246	150	9.16	33.81	2.97	26.18	184	0.44
96	10.60	33.48	3.89	232	200	8.42	34.02	1.87	26.47	157	0.52
110	10.12	33.58	3.66	216	250	7.94	34.09	1.72	26.59	145	0.60
134	9.42	33.71	3.39	196	300	7.39	34.17	1.18	26.73	133	0.67
161	9.00	33.87	2.68	178	400	6.63	34.25	0.67	26.91	116	0.80
192	8.53	34.00	1.90	161	500	5.92	34.33	0.45	27.06	101	0.92
237	8.05	34.07	1.81	149							
311	7.26	34.18	1.03	130							
413	6.56	34.26	0.65	114							
526	5.71	34.37a)	0.37	96							

a) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10^{-5} cm/g	ΔD dyn. m

STRANGER; October 18, 1958; 0940 GCT; 31°01.5'N, 119°47.5'W; sounding, 1950 fm; wind, 320°, force 3; weather, partly cloudy; sea, rough; wire angle, 04°. 97.70

0	18.70	33.37	5.69	404	0	18.70	33.37	5.69	23.87	404	0.00
11	18.72	33.35	6.06	406	10	18.72	33.35	6.00	23.86	406	0.04
30	18.60	33.36	5.82	402	20	18.69	33.35	5.98	23.87	404	0.08
					30	18.60	33.36	5.82	23.89	402	0.12

STRANGER; October 18, 1958; 1457 GCT; 30°44.5'N, 120°26'W; sounding, 2100 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 06°. 97.80

0	19.88	33.64	5.41	413	0	19.88	33.64	5.41	23.78	413	0.00
11	19.86	33.62	5.65	414	10	19.86	33.62	5.60	23.77	414	0.04
30	19.88	33.64	5.67	414	20	19.87	33.63	5.66	23.77	414	0.08
40	19.88	33.59	5.71	417	30	19.88	33.64	5.67	23.77	414	0.12
49	17.98	33.50	6.24	377	50	17.78	33.49	6.29	24.19	374	0.20
58	16.50	33.42	6.56	350	75	15.52	33.44	6.33	24.68	327	0.29
67	15.98	33.42	6.31	338	100	13.30	33.48	5.85	25.18	280	0.37
81	15.13	33.46	6.34	317	150	10.00	33.59	4.92	25.87	214	0.49
94	13.98	33.44	6.08	296	200	8.80	33.82	3.39	26.25	178	0.59
105	12.72	33.53	5.66	265	250	8.14	34.02	2.79	26.50	154	0.68
130	11.15	33.55	5.58	235	300	7.47	34.15	2.30	26.70	135	0.75
157	9.64	33.60	4.68	207	400	6.28	34.19	1.30	26.90	116	0.88
188	8.96	33.78	3.53	183	500	5.75	34.23	0.68	27.00	107	1.00
233	8.32	33.96	2.97	161							
307	7.39	34.16	2.22	133							
398	6.30	34.19	1.34	117							
518	5.66	34.24	0.57	105							

STRANGER; October 18, 1958; 2020 GCT; 30°24.5'N, 121°12'W; sounding, 2050 fm; wind, 340°, force 5; weather, cloudy; sea, rough; wire angle, 10°. 97.90

4	20.58	33.77	5.23	421
13	20.54	33.80	5.33	418
23p	20.45	33.78	5.15	418
33p	17.67	33.54	5.90	418
42p	16.74	33.47	5.86	367
50p	16.14	33.44	5.96	352
63p	15.62	33.48	5.84	341
76p	14.39	33.48	5.70	327
88p	13.48	33.48	5.40	301
109p	11.32	33.49	5.04	283
133p	9.85	33.55	4.55	243
163p	9.20	33.69	4.25	194
202p	8.40	33.91	3.16	167
263p	7.57	34.02	2.31	146
337p	6.70	34.09	1.43	129
430p	5.86	34.13	1.14	116

PAOLINA-T; October 20, 1958; 1819 GCT; 31°40.5'N, 116°46.5'W; sounding, 250 fm; wind, 090°, force 2; weather, cloudy; sea, very rough; wire angle, 04°. 100.30

0	19.06	33.56	5.37	399	0	19.06	33.56	5.37	23.93	399	0.00
9	18.58	33.51	5.53	391	10	18.48	33.51	5.53	24.03	389	0.04
30	15.62	33.48	5.80	327	20	18.06	33.50	5.61	24.13	379	0.08
50	15.08	33.68	4.36	301	30	15.62	33.48	5.80	24.68	327	0.11
75	14.06	33.69	3.49	279	50	15.08	33.68	4.36	24.96	301	0.18
100	12.81	33.78	2.57	248	75	14.06	33.69	3.49	25.18	279	0.25
124	12.25	33.87	2.04	232	100	12.81	33.78	2.57	25.51	248	0.32
165	10.46	33.96	2.43	194	150	11.05	33.93	2.32	25.95	206	0.43
203	9.73	34.05	2.33	176	200	9.78	34.04	2.34	26.26	177	0.53
253	8.96	34.18	2.14	154	250	8.97	34.18	2.17	26.49	155	0.62
300	8.34	34.22	1.40	141	300	8.34	34.22	1.40	26.63	141	0.69
408	6.92	34.23	0.94	121	400	7.04	34.23	0.96	26.83	123	0.83

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

100.40 PAOLINA-T; October 20, 1958; 1121 GCT; 31°20.5'N, 117°29'W; sounding, 1100 fm; wind, 340°, force 4; weather, overcast; sea, very rough; wire angle, 05°.

0	21.18	33.58	5.24	450	0	21.18	33.58	5.24	23.39	450	0.00
11	21.18	33.63	5.11	447	10	21.18	33.62	5.12	23.41	448	0.04
31	19.35	33.50	5.54	410	20	21.19	33.62	5.11	23.43	446	0.09
46	16.62	33.58	5.33	341	30	19.53	33.51	5.50	23.77	414	0.13
56	15.85	33.60	4.93	322	50	16.36	33.59	5.22	24.60	335	0.21
66	14.56	33.56	4.72	299	75	13.92	33.67	4.47	25.19	278	0.28
76	13.92	33.67	4.46	278	100	12.21	33.68	3.87	25.54	245	0.35
95	12.47	33.68	3.99	250	150	10.26	33.78	3.35	25.98	204	0.47
110	11.82	33.69	3.69	237	200	8.76	33.99	2.55	26.39	165	0.56
125	11.60	33.73	3.27	230	250	8.00	34.09	1.97	26.58	146	0.64
149	10.27	33.78	3.35	204	300	7.69	34.16	1.42	26.68	137	0.71
177	9.36	33.91	2.85	180	400	7.08	34.23	0.88	26.82	124	0.85
215	8.48	34.03	2.37	158	500	6.25	34.27	0.64	26.96	110	0.97
269	7.86	34.12	1.79	142	600	5.59	34.35	0.39	27.11	96	1.08
352	7.55	34.22	1.06	130							
456	6.55	34.25	0.73	115							
602	5.58	34.35	0.38	96							

100.70 PAOLINA-T; October 19, 1958; 1435 GCT; 30°12.5'N, 119°40.5'W; sounding, 2000 fm; wind, 340°, force 6; weather, partly cloudy; sea, very rough; wire angle, 18°.

0	19.74	33.40	4.75	427	0	19.74	33.40	4.75	23.63	427	0.00
11	19.74	33.44	5.11	424	10	19.74	33.44	5.10	23.66	424	0.04
30	19.81	33.42	5.07	427	20	19.77	33.43	5.10	23.64	426	0.08
59	16.44	33.44	5.44	347	30	19.81	33.42	5.07	23.63	427	0.13
68	14.92	33.33	5.75	323	50	18.74	33.43	5.11	23.90	401	0.21
78	14.41	33.46	5.52	303	75	14.60	33.41	5.61	24.86	310	0.30
92	13.38	33.45	5.16	283	100	12.42	33.43	4.91	25.31	267	0.37
107	11.82	33.43	4.81	256	150	9.80	33.60	4.31	25.92	210	0.49
121	10.92	33.48	4.79	237	200	8.72	33.89	2.88	26.32	172	0.59
139	10.28	33.55	4.40	221	250	8.06	34.03	2.55	26.53	151	0.67
158	9.55	33.64	4.29	203	300	7.47	34.08	2.25	26.65	140	0.75
186	8.95a)	33.81	3.42	181	400	6.77	34.16	1.06	26.81	125	0.89
209	8.60	33.93	2.71	167	500	6.24	34.32	0.46	27.00	106	1.01
262	7.92	34.05	2.51	148	600	(5.63)	(34.40)	(0.29)	(27.14)	(93)	(1.11)
344	7.05	34.11	1.65	132							
452	6.49	34.27	0.59	113							
590	5.71	34.39	0.29	94							

100.80 PAOLINA-T; October 19, 1958; 0805 GCT; 29°55'N, 120°12'W; sounding, 1900 fm; wind, 340°, force 7; weather, clear; sea, high; wire angle, 17°.

0	20.54	33.57	4.36	434	0	20.54	33.57	4.36	23.56	434	0.00
12	20.53	33.57	4.90	434	10	20.53	33.57	4.85	23.56	434	0.04
31	20.57	33.57	4.86	436	20	20.55	33.57	4.88	23.55	435	0.09
60	16.00	33.33	5.05	346	30	20.57	33.57	4.86	23.54	436	0.13
69	15.22	33.35	5.79	327	50	17.70	33.39	5.39	24.13	380	0.21
79	14.41	33.38	5.60	309	75	14.83	33.36	5.72	24.77	319	0.30
93	13.47	33.48	5.27	283	100	12.90	33.47	5.03	25.25	273	0.38
108	12.24	33.47	4.79	261	150	9.69	33.62	3.75	25.94	207	0.49
121	10.86	33.48	4.46	236	200	8.80	33.97	2.61	26.36	167	0.59
139	9.96	33.57	3.92	214	250	8.28	34.04	2.16	26.49	155	0.67
158	9.46	33.69	3.54	198	300	7.67	34.11	1.65	26.64	141	0.75
186	8.90	33.86	2.88	176	400	6.88	34.21	0.84	26.84	122	0.89
209	8.77	34.00	2.50	164	500	6.25	34.27	0.43	26.96	110	1.01
262	8.14	34.05	2.05	151	600	(5.57)	(34.33)		(27.10)	(97)	(1.12)
343	7.23	34.18	1.25	129							
450	6.60	34.24	0.50	116							
588	5.62	34.33	0.40	98							

a) Alternate value, 9.19°C, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

PAOLINA-T; October 19, 1958; 0210 GCT; 29°40.5'N, 120°39.5'W; sounding, 2050 fm; wind, 340°, force 4; weather, partly cloudy; sea, rough; wire angle, 10°. 100.90

0	20.16	33.51	5.17	429	0	20.16	33.51	5.17	23.61	429	0.00
12	20.16	33.53	4.91	427	10	20.16	33.53	4.93	23.62	428	0.04
31	-	33.57	5.14		20	20.14	33.54	4.93	23.64	426	0.08
46	17.58	33.47	5.73	371	30	20.07	33.56	5.18	23.66	424	0.13
55	16.40	33.55	5.70	339	50	16.78	33.50	5.77	24.43	351	0.20
65	16.44	33.68	5.74	330	75	16.37	33.83	5.67	24.78	317	0.29
76	16.36	33.83	5.66	317	100	15.55	33.79	5.31	24.94	302	0.37
93	15.86	33.80	5.39	308	150	10.39	33.59	4.47	25.80	220	0.50
108	15.00	33.79	5.25	291	200	9.22	33.88	2.54	26.21	182	0.60
122	13.50	33.78	5.13	262	250	8.83	34.12	1.82	26.48	156	0.69
145	10.71	33.58	4.71	226	300	8.45	34.19	1.46	26.59	146	0.77
174	9.63a)	33.71	3.44	199	400	7.27	34.23	0.93	26.79	126	0.91
209	9.18	33.96	2.31	172	500	6.28	34.27	0.58	26.96	111	1.03
261	8.76	34.14	1.72	154	600	(5.52)	(34.32)		(27.09)	(98)	(1.14)
340	8.02	34.21	1.23	138							
441	6.80	34.24	0.76	119							
586	5.63	34.31	0.35	100							

PAOLINA-T; October 17, 1958; 0525 GCT; 31°00'N, 116°33.5'W; sounding, 190 fm; wind, 340°, force 2; weather, clear; sea, moderate; wire angle, 10°. 103.32

0	20.54	33.60	5.40	432	0	20.54	33.60	5.40	23.58	432	0.00
12	20.41	33.64	4.50	427	10	20.45	33.64	4.57	23.62	428	0.04
32	18.78	33.64	5.09	386	20	20.37	33.64	4.50	23.68	423	0.08
51	15.26	33.64	4.58	307	30	19.17	33.64	4.98	23.96	396	0.13
76	14.30	33.75	3.53	280	50	15.30	33.64	4.61	24.88	308	0.20
100	13.36	33.81	2.81	256	75	14.32	33.74	3.55	25.17	280	0.27
125	12.27	33.86	2.73	233	100	13.36	33.81	2.81	25.42	256	0.34
166	10.80	33.95	2.32	200	150	11.53	33.93	2.48	25.87	214	0.46
205	10.71	34.20	1.56	180	200	10.72	34.18	1.60	26.20	182	0.56
256	9.38	34.24	1.36	156	250	9.50	34.24	1.36	26.46	158	0.65
308	8.30	34.22	1.31	141	300	8.48	34.22	1.32	26.61	144	0.72

PAOLINA-T; October 17, 1958; 0800 GCT; 30°53.5'N, 116°45.5'W; sounding, 930 fm; wind, 320°, force 2; weather, clear; sea, moderate; wire angle, 00°. 103.35

0	21.32	33.59	5.09	454	0	21.32	33.59	5.09	23.36	454	0.00
12	21.24	33.60	5.09	451	10	21.26	33.60	5.09	23.38	451	0.04
32	18.40	33.40	5.81	394	20	21.18	33.60	5.10	23.40	449	0.09
42	16.34	33.37	5.92	350	30	19.00	33.44	5.41	23.85	406	0.13
52	15.64	33.37	5.86	336	50	15.74	33.37	5.88	24.58	336	0.21
61	14.79	33.46	5.60	311	75	14.07	33.52	5.22	25.06	291	0.28
71	14.24	33.52	5.30	295	100	11.83	33.58	4.29	25.54	245	0.36
86	12.78	33.55	4.71	265	150	9.80	33.76	3.16	26.04	198	0.46
101	11.81	33.58	4.28	245	200	9.41	34.07	2.28	26.34	169	0.56
116	11.36	33.79	3.01	222	250	9.65	34.42	0.68	26.57	147	0.64
141	9.88	33.73	3.43	202	300	8.94	34.38	0.69	26.66	139	0.71
171	9.66	33.95	2.67	182	400	7.30	34.31	0.63	26.86	120	0.85
205	9.38	34.09	2.19	167	500	6.38	34.32	0.44	26.99	108	0.97
255	9.64	34.43	0.66	146							
335	8.32	34.34	0.72	132							
434	6.88	34.31	0.55	115							
564	5.96	34.34	0.36	101							

a) Alternate value, 10.00°C, not used in interpolation.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
103.40	PAOLINA-T; October 17, 1958; 1143 GCT; 30°44.5'N, 117°06'W; sounding, 1040 fm; wind, 280°, force 2; weather, clear; sea, moderate; wire angle, 00°.										
0	21.10	33.56	5.05	450	0	21.10	33.56	5.05	23.39	450	0.00
11	21.12	33.58	5.16	449	10	21.12	33.58	5.15	23.40	449	0.04
31	16.50	33.33	5.94	357	20	19.78	33.40	5.22	23.70	421	0.09
41	15.09	33.44	5.76	319	30	16.75	33.34	5.90	24.32	362	0.13
50	14.05	33.42	5.36	299	50	14.05	33.42	5.36	24.98	299	0.19
60	13.08	33.52	4.77	273	75	12.10	33.55	4.30	25.47	252	0.26
70	12.34	33.53	4.44	259	100	11.02	33.59	4.08	25.70	230	0.32
85	11.68	33.62	4.11	240	150	9.38	33.80	3.28	26.14	188	0.43
101	10.94	33.59	4.08	230	200	8.99	34.05	2.32	26.40	164	0.52
115	10.08	33.78	3.80	202	250	8.52	34.17	1.70	26.56	148	0.60
170	9.04	33.82	3.01	182	300	8.26	34.28	1.02	26.69	136	0.67
205	8.98	34.08	2.17	162	400	7.40	34.32	0.58	26.85	121	0.80
254	8.44	34.18	1.65	146	500	6.48	34.32	0.41	26.98	109	0.92
333	8.14	34.33	0.80	131							
433	7.02	34.32	0.50	116							
562	5.94	34.34	0.33	101							
103.50	PAOLINA-T; October 17, 1958; 1814 GCT; 30°26'N, 117°46.5'W; sounding, 1400 fm; wind, 320°, force 2; weather, clear; sea, moderate; wire angle, 00°.										
0	21.66	33.64	5.10	459	0	21.66	33.64	5.10	23.30	459	0.00
12	21.36	33.69	5.35	447	10	21.38	33.69	5.33	23.41	448	0.04
32	20.20	33.55	4.61u	428	20	21.35	33.69		23.42	446	0.09
42	17.37	33.45	5.82	367	30	21.00	33.65		23.49	441	0.13
51	15.74	33.44	5.37	332	50	15.85	33.44	5.40	24.61	334	0.21
62	15.18	33.48	5.33	317	75	14.02	33.44	5.20	25.00	297	0.29
72	14.24	33.44	5.26	301	100	11.66	33.52	4.36	25.52	247	0.36
84	13.36	33.44	4.94	284	150	9.48	33.78	3.25	26.11	191	0.47
101	11.56	33.53	4.32	244	200	9.00	34.08	1.99	26.43	161	0.56
115	10.24	33.59	3.41	218	250	8.10	34.11	1.96	26.58	146	0.64
140	9.56	33.69	3.34	199	300	7.65	34.18	1.38	26.70	135	0.71
169	9.39	33.96	2.41	177	400	6.86	34.28	0.70	26.89	117	0.84
203	8.95	34.09	1.98	160	500	6.18	34.32	0.46	27.02	105	0.96
253	8.04	34.11	1.96	146							
331	7.48	34.22	1.01	130							
432	6.58	34.30	0.59	112							
563	5.82	34.34	0.37	100							
103.60	PAOLINA-T; October 18, 1958; 0140 GCT; 30°06'N, 118°24'W; sounding, 1700 fm; wind, 340°, force 2; weather, clear; sea, rough; wire angle, 08°.										
0	21.66	33.59	4.66	462	0	21.66	33.59	4.66	23.26	462	0.00
12	21.49	33.58	5.06	459	10	21.51	33.58	5.04	23.30	459	0.05
32	20.37	33.52	5.20	434	20	21.34	33.57	5.10	23.33	456	0.09
41	18.52	33.48	5.55	392	30	20.93	33.55	5.14	23.43	446	0.14
51	16.62	33.37	5.82	356	50	16.70	33.37	5.81	24.35	358	0.22
61	15.86	33.48	5.71	331	75	14.20	33.48	5.13	25.00	297	0.30
71	14.78	33.47	5.38	310	100	12.22	33.51	4.54	25.41	258	0.37
86	13.35	33.50	4.81	279	150	10.01	33.70	3.60	25.96	206	0.49
100	12.22	33.51	4.54	258	200	9.13	34.00	2.36	26.34	169	0.58
115	11.06	33.55	4.23	234	250	8.75	34.18	1.70	26.55	150	0.66
140	10.24	33.66	3.77	212	300	8.15	34.24	1.35	26.67	138	0.74
168	9.58	33.78	3.19	193	400	7.06	34.30	0.78	26.88	118	0.87
203	9.08	34.02	2.32	168	500	6.28	34.34	0.48	27.02	105	0.99
251	8.71	34.19	1.67	150							
329	7.76	34.26	1.14	130							
429	6.80	34.40u	0.65								
561	5.86	34.36	0.36	99							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

PAOLINA-T; October 18, 1958; 0752 GCT; 29°44.5'N, 119°08'W; sounding, 1800 fm; wind, 320°, force 2; weather, fog; sea, rough; wire angle, 02°. 103.70

0	20.68	33.56	5.11	439	0	20.68	33.56	5.11	23.50	439	0.00
11	20.67	33.55	5.02	440	10	20.67	33.55	5.03	23.50	440	0.04
31	19.87	33.57	5.25	418	20	20.58	33.55	5.02	23.52	438	0.09
41	17.23	33.48	5.78	362	30	20.08	33.56	5.17	23.66	424	0.13
51	17.02	33.65	5.82	345	50	17.03	33.64	5.82	24.49	345	0.21
61	17.38	33.89	5.65	335	75	16.30	33.83	5.66	24.80	316	0.29
70	16.62	33.82	5.61	324	100	15.88	33.93	5.44	24.98	299	0.37
85	16.04	33.85	5.69	309	150	10.43	33.60	4.66	25.80	220	0.50
100	15.88	33.93	5.44	299	200	8.90	33.91	3.10	26.30	173	0.60
115	14.05	33.77	5.35	273	250	7.95	34.00	2.58	26.52	152	0.68
139	11.02	33.58	4.90	231	300	7.24	34.06	1.94	26.67	138	0.76
168	9.70	33.66	4.28	204	400	6.61	34.22	0.80	26.88	118	0.89
201	8.89	33.91	3.09	173	500	6.12	34.32	0.44	27.03	104	1.01
249	7.96	34.00	2.59	152							
326	6.96	34.09	1.57	132							
426	6.48	34.25	0.61	114							
555	5.71	34.38	0.37	95							

PAOLINA-T; October 18, 1958; 1405 GCT; 29°24'N, 119°51'W; sounding, 1900 fm; wind, 320°, force 3; weather, clear; sea, rough; wire angle, 03°. 103.80

0	20.12	33.39	5.24	438	0	20.12	33.39	5.24	23.52	438	0.00
11	20.12	33.47	4.98	431	10	20.12	33.46	5.00	23.58	432	0.04
31	20.07	33.39	5.08	436	20	20.10	33.43	5.00	23.56	434	0.09
56	16.06	33.26	5.43	352	30	20.07	33.40	5.08	23.54	436	0.13
67	15.20	33.25	5.71	334	50	18.00	33.31	5.26	24.00	392	0.21
77	14.48	33.20	5.28	324	75	14.60	33.21	5.31	24.70	326	0.30
87	13.12	33.22	5.57	296	100	12.10	33.30	5.16	25.27	271	0.38
102	12.02	33.31	5.07	269	150	9.46	33.62	3.77	25.99	203	0.50
117	10.98	33.38	4.58	245	200	8.70	33.94	2.30	26.35	168	0.59
136	9.76	33.60	4.08	209	250	8.20	34.10	1.72	26.56	148	0.67
156	9.36	33.64	3.50	200	300	7.66	34.13	1.38	26.66	139	0.75
180	8.92a)	33.81	2.76	180	400	6.63	34.15	0.98	26.84	122	0.88
205	8.66	33.95	2.26	166	500	5.70	34.28	0.56	27.05	102	1.00
255	8.14	34.11	1.67	147							
333	7.28	34.14	1.18	133							
433	6.10	34.16	0.81	116							
564	5.52	34.40	0.39	92							

PAOLINA-T; October 18, 1958; 1914 GCT; 29°09.5'N, 120°25'W; sounding, 2000 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 17°. 103.90

0	20.32	33.40	5.40	442	0	20.32	33.40	5.40	23.48	442	0.00
11	20.18	33.43	5.12	436	10	20.19	33.43	5.13	23.53	436	0.04
30	20.07	33.40	5.22	435	20	20.10	33.41	5.20	23.54	436	0.09
54	17.26	33.37	5.80	370	30	20.07	33.40	5.22	23.54	435	0.13
63	16.66	33.37	5.82	357	50	17.81	33.37	5.74	24.10	383	0.21
72	15.84	33.41	5.89	336	75	15.58	33.40	5.87	24.63	332	0.30
82	15.18	33.38	5.80	325	100	14.26	33.43	5.61	24.94	302	0.38
96	14.46	33.44	5.66	305	150	9.92	33.56	4.29	25.86	215	0.51
109	13.02	33.33	5.34	286	200	8.72	33.84	2.88	26.28	175	0.61
127	10.77	33.42	4.53	239	250	8.00	34.03	2.05	26.54	151	0.69
145	10.04	33.54	4.34	218	300	7.62	34.10	1.52	26.64	140	0.77
167	9.44	33.61	3.92	204	400	6.42	34.14	1.01	26.84	122	0.91
188	8.97	33.78	3.19	183	500	5.73	34.21	0.64	26.99	108	1.03
234	8.14	33.98	2.26	156							
308	7.57	34.11	1.46	139							
406	6.38	34.14	0.99	121							
535	5.50	34.24	0.45	104							

a) Alternate value, 9.06°C; not used in interpolation.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm^3/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm^3/g	ΔD dyn. m
10732	PAOLINA-T; October 16, 1958; 2324 GCT; 30°25.5'N, 116°10.5'W; sounding, 190 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 20°.										
0	21.82	33.62a)	4.74	465	0	21.82	33.62	4.74	23.24	465	0.00
11	20.57	33.62	4.82b)	432	10	20.67	33.62	4.80	23.56	434	0.04
31	18.20	33.48	5.40	384	20	19.45	33.56	5.10	23.81	408	0.09
50	15.88	33.61	5.01	322	30	18.30	33.49	5.39	24.05	387	0.13
74	14.24	33.68	3.73	284	50	15.88	33.61	5.01	24.74	322	0.20
98	12.76	33.73	2.64	251	75	14.18	33.68	3.67	25.16	282	0.27
123	12.41	33.93	1.86	230	100	12.76	33.76	2.63	25.50	249	0.34
161	11.66	34.16	1.27	200	150	11.95	34.10	1.32	25.92	209	0.46
201	9.80	34.14	1.85	170	200	9.80	34.14	1.85	26.33	170	0.55
250	9.98	34.49	0.92	146	250	9.98	34.49	0.92	26.58	146	0.64
10735	PAOLINA-T; October 16, 1958; 2130 GCT; 30°22.5'N, 116°18'W; sounding, 880 fm; wind, 320°, force 1; weather, clear; sea, moderate; wire angle, 07°.										
0	21.85	33.66	4.68	462	0	21.85	33.66	4.68	23.26	462	0.00
11	21.28	33.65	4.64	448	10	21.30	33.65	4.64	23.40	449	0.04
31	20.30	33.62	5.36	425	20	21.14	33.65	4.74	23.44	445	0.09
41	17.19	33.37	5.58	369	30	20.60	33.63	5.15	23.58	432	0.13
51	15.68	33.37	5.58	336	50	15.80	33.37	5.58	24.57	338	0.21
60	14.90	33.44	5.08	315	75	13.78	33.54	4.69	25.13	285	0.29
70	13.92	33.54	4.67	288	100	11.98	33.60	4.28	25.53	246	0.36
84	13.03	33.55	4.92	270	150	9.87	33.88	2.56	26.12	190	0.47
100	11.98	33.60	4.28	246	200	9.34	34.14	1.82	26.42	162	0.56
114	12.00	33.90	2.82	225	250	9.90	34.44	0.78	26.55	149	0.64
139	10.02	33.82	2.70	197	300	9.12	34.41	0.68	26.66	139	0.71
167	9.66	34.00	2.26	178	400	7.60	34.35	0.51	26.84	122	0.85
202	9.28	34.15	1.72	161	500	6.60	34.34	0.36	26.98	109	0.97
250	9.90	34.44	0.78	149							
330	8.62	34.39	0.65	133							
429	7.22	34.34	0.46	117							
558	6.03	34.34	0.28	102							
10740	PAOLINA-T; October 16, 1958; 1820 GCT; 30°15'N, 116°34.5'W; sounding, 1500 fm; wind, 340°, force 2; weather, clear; sea, moderate; wire angle, 00°.										
0	21.68	33.66	4.90	458	0	21.68	33.66	4.90	23.31	458	0.00
12	21.42	33.68	4.87	450	10	21.45	33.68	4.87	23.38	450	0.04
32	21.06	33.66	5.05	441	20	21.28	33.68	4.92	23.43	446	0.09
42	17.32	33.46	5.29	365	30	21.10	33.66	5.03	23.47	442	0.13
52	16.36	33.41	5.80	347	50	16.50	33.42	5.73	24.44	350	0.21
62	15.74	33.53	5.42	325	75	15.66	33.69	5.48	24.84	312	0.30
72	15.78	33.69	5.51	314	100	12.56	33.53	4.73	25.36	263	0.37
87	14.45	33.66	5.08	289	150	9.51	33.67	3.86	26.02	200	0.48
102	12.32	33.52	4.71c)	259	200	9.09	34.08	2.13	26.40	164	0.58
116	11.12	33.58	4.66	233	250	8.94	34.24	1.26	26.56	148	0.66
142	9.80	33.62	4.12	208	300	8.15	34.24	1.12	26.68	138	0.73
171	9.08	33.84	2.98	181	400	7.25	34.31	0.60	26.86	120	0.87
206	9.09	34.11	1.96	161	500	6.66	34.37	0.35	26.99	108	0.99
256	8.86	34.25	1.23	147							
335	7.60	34.23	1.04	131							
434	7.07	34.35	0.43	114							
564	6.24	34.38	0.31	102							

a) Salinity bottle numbers were not recorded on the data sheet. Since standard handling and titrating procedures were used, these salinity values are assumed to be in correct order.
b) Alternate value, 4.34 ml/L, not used in interpolation.
c) Alternate value, 4.46 ml/L, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m

107.50

PAOLINA-T; October 16, 1958; 1156 GCT; 29°54'N, 117°14'W; sounding, 1500 fm; wind, 340°, force 3; weather, clear; sea, moderate; wire angle, 05°.

0	21.02	33.59	4.98	446	0	21.02	33.59	4.98	23.43	446	0.00
11	21.01	33.61	4.82	444	10	21.01	33.61	4.83	23.45	444	0.04
31	19.30	33.46	5.01	412	20	21.00	33.61	4.82	23.45	444	0.09
46	15.66	33.39	5.69	334	30	19.80	33.50	4.82	23.69	421	0.13
56	14.60	33.40	5.58	312	50	15.25	33.39	5.66	24.70	325	0.21
67	13.36	33.51	5.01	279	75	12.48	33.49	4.77	25.35	264	0.28
77	12.35	33.49	4.72	262	100	10.70	33.58	3.84	25.74	226	0.34
96	10.89	33.55	3.89	231	150	9.58	33.86	2.71	26.16	187	0.45
110	10.34	33.66	3.76	214	200	8.60	33.99	2.41	26.42	162	0.54
125	9.97	33.70	3.32	205	250	7.88	34.12	1.82	26.63	142	0.62
150	9.58	33.86	2.71	187	300	7.58	34.21	1.42	26.74	132	0.68
179	9.07a)	33.95	2.61	173	400	6.87	34.29	0.58	26.90	116	0.81
218	8.18	34.04	2.14	153	500	6.14	34.32	0.40	27.02	104	0.93
272	7.76	34.16	1.64	138	600	5.57	34.38	0.31	27.14	94	1.04
357	7.22	34.27	0.93	122							
467	6.38	34.31	0.47	108							
606	5.55	34.38	0.30	94							

107.60

PAOLINA-T; October 16, 1958; 0500 GCT; 29°33.5'N, 117°56'W; sounding, 1800 fm; wind, 340°, force 3; weather, clear; sea, moderate; wire angle, 18°,

0	21.48	33.65	5.10	453	0	21.48	33.65	5.10	23.36	453	0.00
11	21.49	33.64	5.15	454	10	21.49	33.64	5.14	23.35	454	0.04
30	21.28	33.69	5.12	445	20	21.39	33.67	5.15	23.40	449	0.09
59	16.52	33.58	5.58	338	30	21.28	33.69	5.12	23.44	445	0.13
68	15.58	33.58	5.24	318	50	17.45	33.60	5.53	24.35	358	0.22
77	13.82	33.55	4.91	285	75	14.20	33.56	4.98	25.05	292	0.30
91	12.42	33.55	4.30	259	100	11.85	33.55	4.17	25.52	248	0.37
104	11.60	33.55	4.14	244	150	9.92	33.76	3.35	26.02	200	0.48
118	10.92	33.55	4.11	232	200	9.27	34.12	2.07	26.41	163	0.57
134	10.58	33.74	3.84	212	250	8.45	34.16	1.65	26.57	148	0.65
152	9.86	33.76	3.30	199	300	7.93	34.18	1.30	26.67	138	0.73
177	9.52b)	33.95	2.44	180	400	6.92	34.22	0.78	26.84	122	0.86
199	9.28	34.12	2.08	163	500	6.12	34.27	0.46	26.99	108	0.98
247	8.48	34.16	1.67	148							
326	7.70	34.19	1.18	135							
431	6.62	34.23	0.66	117							
567	5.67	34.33	0.32	98							

107.70

PAOLINA-T; October 15, 1958; 2241 GCT; 29°13'N, 118°38'W; sounding, 2000+ fm; wind, 340°, force 3; weather, clear; sea, moderate; wire angle, 05°.

0	21.40	33.64	5.14	452	0	21.40	33.64	5.14	23.37	452	0.00
11	20.95	33.66	4.71	438	10	20.97	33.66	4.71	23.50	439	0.04
31	20.47	33.66	4.98	427	20	20.75	33.66	4.80	23.56	434	0.09
41	17.72	33.46	5.82	375	30	20.50	33.66	4.96	23.62	428	0.13
51	16.89	33.58	5.78	347	50	16.90	33.58	5.79	24.46	348	0.21
61	16.64	33.75	5.67	330	75	16.20	33.83	5.60	24.82	314	0.29
70	16.44	33.83	5.61	319	100	15.15	33.82	5.40	25.05	292	0.37
85	15.78	33.82	5.60	305	150	10.88	33.60	4.71	25.72	228	0.50
99	15.20	33.82	5.42	293	200	9.10	33.78	3.84	26.16	186	0.61
114	14.30	33.78	5.28	278	250	8.02	34.00	2.60	26.51	153	0.69
138	11.80	33.63	4.92	241	300	7.43	34.10	1.92	26.67	138	0.77
166	10.13	33.58	4.42	217	400	6.85	34.25	0.89	26.87	119	0.90
199	9.12	33.77	3.85	187	500	6.26	34.32	0.46	27.01	106	1.02
247	8.06	33.99	2.64	155							
325	7.23	34.13	1.58	133							
422	6.76	34.28	0.68	115							
552	5.94	34.35	0.38	100							

a) Alternate value, 9.21°C, not used in interpolation.
b) Alternate value, 9.31°C, not used in interpolation.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

107.80 PAOLINA-T; October 15, 1958; 1617 GCT; 28°49'N, 119°16'W; sounding, 2000 fm; wind, 340°, force 4; weather, clear; sea, rough; wire angle, 05°.

0	20.96	33.80	5.10	429	0	20.96	33.80	5.10	23.61	429	0.00
12	20.96	33.86	4.85	424	10	20.96	33.84	4.88	23.64	426	0.04
32	20.94	33.86	4.96	425	20	20.95	33.86	4.90	23.65	425	0.08
62	18.27	34.13	5.54	339	30	20.94	33.86	4.95	23.65	425	0.13
73	17.96	34.18	5.45	328	50	19.15	34.04	5.44	24.27	366	0.21
83	17.60	34.13	5.51	323	75	17.88	34.17	5.46	24.68	327	0.29
97	16.22	33.94	5.51	306	100	16.04	33.93	5.50	24.94	303	0.37
112	15.52	33.90	5.36	294	150	12.43	33.64	4.94	25.47	252	0.52
126	14.90	33.86	4.96	284	200	9.42	33.74	3.60	26.09	193	0.63
146	12.82	33.64	4.98	259	250	8.60	33.97	2.76	26.40	164	0.72
164	11.16	33.64	4.66	229	300	7.85	34.04	2.17	26.57	148	0.80
192	9.60	33.69	3.80	200	400	6.64	34.16	1.05	26.83	123	0.94
217	9.10	33.87	3.26	179	500	6.07	34.24	0.54	26.96	110	1.07
272	8.24	34.02	2.47	155	600	5.55	34.29	0.38	27.07	100	1.18
355	7.06	34.09	1.62	134							
462	6.26	34.22	0.65	114							
605	5.48	34.30	0.36	98							

107.90 PAOLINA-T; October 15, 1958; 0921 GCT; 28°25'N, 119°58'W; sounding, 2000 fm; wind, 360°, force 4; weather, clear; sea, moderate; wire angle, 10°.

0	21.37	33.93	4.97	430	0	21.37	33.93	4.97	23.60	430	0.00
12	21.37	33.93	4.50	430	10	21.37	33.93	4.56	23.60	430	0.04
31	21.38	33.91	4.93	432	20	21.37	33.92	4.72	23.59	431	0.09
61	18.13	33.75	5.35	363	30	21.38	33.91	4.92	23.58	432	0.13
70	17.74	33.76	5.14	353	50	19.00	33.78	5.28	24.11	382	0.21
80	17.48	33.77	5.45	347	75	17.58	33.76	5.35	24.44	350	0.30
95	17.55	33.97	5.16	334	100	17.10	33.95	5.04	24.70	325	0.39
110	16.61	33.90	5.01	317	150	12.16	33.57	4.66	25.46	253	0.54
124	15.34	33.76	5.10	300	200	9.88	33.70	3.68	25.98	204	0.65
142	12.86	33.60	4.95	262	250	8.95	34.00	2.67	26.36	167	0.75
162	11.35	33.53	4.21	241	300	8.28	34.12	1.95	26.56	148	0.83
190	10.06a)	33.62	3.88	213	400	7.26	34.22	1.10	26.79	127	0.98
215	9.60	33.85	2.96	186	500	6.39	34.29	0.74	26.96	110	1.10
268	8.64	34.05	2.52	159	600	(5.93)	(34.35)	(0.33)	(27.07)	(100)	(1.21)
351	7.82	34.19	1.33	136							
460	6.62	34.26	0.89	116							
599	5.93	34.35	0.33	100							

110.33 PAOLINA-T; October 13, 1958; 1225 GCT; 29°50.5'N, 115°52'W; sounding, 40 fm; wind, 330°, force 3; weather, fog; sea, moderate; wire angle, 00°.

0	18.62	33.58	5.34	387	0	18.62	33.58	5.34	24.05	387	0.00
12	18.59	33.65	5.20	381	10	18.60	33.65	5.23	24.11	382	0.04
27	18.43	33.61	5.35	380	20	18.55	33.64	5.23	24.12	381	0.08
47	15.96	33.60	5.26	325	30	18.26	33.60	5.37	24.16	376	0.11
68	15.16	33.69	4.65	301	50	15.58	33.60	5.20	24.75	321	0.18

a) Alternate value, 9.81°C, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10^{-5} cm/g	ΔD dyn. m

110.35

PAOLINA-T; October 13, 1958; 1419 GCT; 29°46.5'N, 115°59.5'W; sounding, 600 fm; wind, 280°, force 4; weather, fog; sea, moderate; wire angle, 10°.

0	19.40	33.60	5.41	404	0	19.40	33.60	5.41	23.87	404	0.00
12	19.28	33.64	5.38	398	10	19.29	33.64	5.39	23.92	399	0.04
31	16.50	33.53	5.62	342	20	19.17	33.64	5.38	23.96	396	0.08
46	15.00	33.74	4.32	295	30	16.60	33.53	5.61	24.50	344	0.12
55	14.74	33.82	3.79	283	50	14.90	33.78	4.06	25.07	290	0.18
65	13.86	33.81	3.22	266	75	13.60	33.85	2.66	25.40	258	0.25
75	13.60	33.85	2.66	258	100	13.38	33.91	2.36	25.49	250	0.31
94	13.50	33.91	2.31	252	150	11.64	34.08	1.88	25.96	205	0.43
109	13.08	33.89	2.49	246	200	11.02	34.31	1.03	26.25	178	0.53
123	12.61	33.95	2.16	232	250	10.04	34.36	0.88	26.46	158	0.61
148	11.66	34.07	1.89	206	300	9.20	34.33	0.93	26.58	146	0.69
176	11.56a)	34.20	1.34	195	400	7.52	34.25	0.87	26.76	129	0.84
216	10.64	34.36	0.92	167	500	6.27	34.26	0.54	26.96	111	0.96
269	9.70	34.36	0.89	152	600	5.68	34.34	0.32	27.09	98	1.07
354	8.30	34.27	0.99	137							
456	6.70	34.24	0.66	118							
600	5.68	34.34	0.32	98							

110.40

PAOLINA-T; October 13, 1958; 1800 GCT; 29°35'N, 116°19'W; sounding, 1120 fm; wind, 340°, force 4; weather, fog; sea, moderate; wire angle, 00°.

4	20.81	33.66	5.35	435	0	20.8	(33.66)	(5.35)	(23.55)	(435)	(0.00)
14	20.66	33.69	5.35	430	10	20.72	33.68	5.35	23.58	432	0.04
34	20.52	33.64	5.26	429	20	20.65	33.67	5.32	23.60	430	0.09
64	13.71	33.64	4.15	276	30	20.64	33.65	5.28	23.59	431	0.13
74	13.12	33.68	3.82	261	50	16.60	33.64	4.69	24.58	336	0.21
83	12.40	33.68	3.60	248	75	13.08	33.68	3.81	25.38	261	0.28
97	11.87	33.80	2.99	230	100	11.78	33.83	2.85	25.74	226	0.34
112	11.60	33.91	2.60	217	150	11.08	34.17	1.86	26.12	189	0.45
127	11.52	34.04	1.96	206	200	10.68	34.44	0.94	26.42	162	0.54
148	11.10	34.16	1.89	190	250	10.07	34.47	0.73	26.54	150	0.62
167	11.02	34.31	1.32	177	300	9.26	34.45	0.73	26.66	139	0.69
196	10.71b)	34.43	0.96	163	400	7.59	34.35	0.74	26.85	121	0.83
221	10.44	34.47	0.81	156	500	6.56	34.34	0.48	26.98	108	0.95
276	9.68	34.47	0.68	144	600	5.98	34.39	0.34	27.09	98	1.06
362	8.16	34.38	0.82	127							
468	6.76	34.33	0.54	112							
613	5.88	34.40	0.31	96							

110.50

PAOLINA-T; October 14, 1958; 0054 GCT; 29°13'N, 116°56.5'W; sounding, 1900 fm; wind, 320°, force 2; weather, fog; sea, moderate; wire angle, 08°.

0	22.08	33.78	4.95	460	0	22.08	33.78	4.95	23.28	460	0.00
12	22.00	33.75	4.94	460	10	22.01	33.76	4.94	23.28	460	0.05
32	21.94	33.77	4.96	457	20	21.97	33.76	4.95	23.31	458	0.09
47	18.04	33.54	5.81	376	30	21.95	33.77	4.96	23.32	457	0.14
56	16.86	33.63	5.82	343	50	17.52	33.58	5.81	24.32	361	0.22
66	16.20	33.60	5.52	330	75	14.54	33.58	5.05	25.00	297	0.30
75	14.54	33.58	5.05	297	100	12.62	33.69	4.32	25.48	251	0.37
95	12.84	33.71	4.46	254	150	10.10	33.82	3.18	26.04	198	0.48
111	12.11	33.66	3.95	245	200	9.37	34.07	2.18	26.35	168	0.58
124	10.96	33.65	3.94	225	250	9.42	34.33	1.12	26.54	150	0.66
148	10.12	33.82	3.21	199	300	9.28	34.45	0.61	26.66	139	0.74
176	9.74	34.00	2.32	179	400	8.08	34.43	0.44	26.84	122	0.87
213	9.20	34.11	2.11	163	500	6.80	34.39	0.38	26.98	108	0.99
267	9.51	34.43	0.79	144	600	(5.90)	(34.40)	(0.26)	(27.11)	(96)	(1.10)
349	8.82	34.46	0.44	131							
451	7.32	34.39	0.44	115							
594	5.94	34.40	0.26	97							

a) Alternate value, 11.32°C, not used in interpolation.
b) Alternate value, 10.92°C, not used in interpolation.

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5810

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

110.60 PAOLINA-T; October 14, 1958; 0745 GCT; 28°52.5'N, 117°35.5'W; sounding, 2000 fm; wind, 320°, force 1; weather, fog; sea, moderate; wire angle, 00°.

0	21.80	33.84	4.96	448	0	21.80	33.84	4.96	23.41	448	0.00
12	21.78	33.81	4.97	450	10	21.78	33.82	4.97	23.40	449	0.04
32	21.76	33.91	5.02	442	20	21.77	33.86	4.99	23.44	446	0.09
57	17.96	33.58	5.77	371	30	21.76	33.91	5.01	23.48	442	0.13
67	16.70	33.55	5.84	345	50	19.05	33.66	5.59	24.01	391	0.22
77	15.74	33.58	5.48	322	75	15.95	33.57	5.56	24.68	327	0.31
87	14.98	33.67	5.38	299	100	13.66	33.58	4.76	25.18	280	0.38
102	13.56	33.57	4.70	278	150	10.50	33.73	3.43	25.89	212	0.51
117	12.44	33.57	4.50	257	200	9.39	34.07	2.40	26.34	169	0.60
137	11.04	33.66	3.60	226	250	9.18	34.29	1.32	26.56	149	0.69
155	10.26	33.75	3.39	206	300	8.32	34.28	1.12	26.67	138	0.76
180	9.22	33.82	3.25	185	400	7.18	34.29	0.62	26.86	120	0.89
205	9.42	34.11	2.01	166	500	6.66	34.35	0.38	26.98	109	1.02
254	9.12	34.29	1.28	148							
333	7.78	34.26	0.98	131							
434	6.96	34.31	0.52	116							
564	6.32	34.41	0.25	100							

110.70 PAOLINA-T; October 14, 1958; 1402 GCT; 28°31'N, 118°13'W; sounding, 1600 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 04°.

0	21.88	33.78	5.83	455	0	21.88	33.78	5.83	23.34	455	0.00
11	21.88	33.82	4.99	452	10	21.88	33.82	5.01	23.37	452	0.04
31	21.78	33.75	4.98	454	20	21.83	33.78	4.99	23.36	453	0.09
56	15.88	33.57	4.73	326	30	21.78	33.75	4.98	23.35	454	0.14
66	14.14	33.57	4.87	290	50	17.20	33.60	4.78	24.41	353	0.22
76	13.01	33.70	4.20	258	75	13.03	33.70	4.22	25.39	259	0.29
86	12.31	33.59	4.08	253	100	11.50	33.68	3.51	25.68	232	0.36
101	11.49	33.68	3.50	232	150	10.10	33.82	2.97	26.04	198	0.46
115	11.17	33.71	3.28	224	200	9.38	34.08	2.18	26.36	168	0.56
135	10.44	33.77	3.15	208	250	8.88	34.26	1.40	26.58	147	0.64
154	10.00a)	33.84	2.89	195	300	8.16	34.26	1.17	26.68	137	0.71
179	9.53	33.94	2.44	180	400	7.42	34.33	0.50	26.85	121	0.85
203	9.32	34.09	2.05	166	500	6.75	34.36	0.37	26.97	109	0.97
252	8.87	34.26	1.39	147							
331	7.72	34.25	1.03	130							
431	7.32	34.35	0.38	118							
560	6.20	34.36	0.37	103							

110.80 PAOLINA-T; October 14, 1958; 1956, 2026 GCT; 28°11.5'N, 118°53'W; sounding, 2050 fm; wind, 320°, force 4; weather, overcast; sea, moderate; wire angle, 07°, 05°.

0	21.72	33.71	4.89	455	0	21.72	33.71	4.89	23.34	455	0.00
12	21.04	33.71	4.76	438	10	21.10	33.71	4.77	23.50	440	0.04
32	20.65	33.82	4.94	420	20	20.88	33.75	4.83	23.59	431	0.09
42	18.75	33.78	5.45	376	30	20.73	33.81	4.90	23.68	422	0.13
52	17.64	33.78	5.45	350	50	17.78	33.78	5.45	24.41	353	0.21
62	17.06	33.93	5.29	325	75	16.38	33.92	5.28	24.85	311	0.29
					100	13.95	33.70	5.06	25.21	277	0.37
71	16.62	33.95	5.29	314	150	9.84	33.61	4.01	25.91	210	0.49
86	15.64	33.83	5.26	302	200	8.54	33.89	3.03	26.34	169	0.58
101	13.84	33.69	5.05	275	250	8.38	34.10	2.05	26.53	152	0.67
116	12.15	33.60	4.90	250	300	8.36	34.28	1.40	26.67	138	0.74
139	10.41	33.57	4.37	222	400	7.59	34.36	0.47	26.85	121	0.88
168	9.03b)	33.70	3.52	190	500	6.60	34.37	0.34	27.00	107	1.00
200	8.54	33.89	3.03	169							
248	8.38	34.07	2.12	153							
325	8.32	34.34	0.75	133							
422	7.37	34.36	0.45	118							
550	6.15	34.38	0.29	100							

a) Mean value of 9.94 and 10.05°C.

b) Alternate value, 9.36°C, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_{-5}^{3}	Z	T	S	O_2	σ_t	δT_{-5}^{3}	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

110.90

PAOLINA-T; October 15, 1958; 0216 GCT; 27°52'N, 119°32.5'W; sounding, 2000+ fm; wind, 350°, force 3; weather, cloudy; sea, moderate; wire angle, 03°.

0	21.38	33.77	4.87	442	0	21.38	33.77	4.87	23.48	442	0.00
12	21.39	33.82	4.77	438	10	21.39	33.81	4.77	23.50	439	0.04
31	20.99	33.96	4.94	418	20	21.26	33.89	4.81	23.59	431	0.09
40	18.56	33.87	4.91	364	30	21.03	33.95	4.93	23.70	420	0.13
51	17.44	33.86	5.59	340	50	17.50	33.86	5.55	24.52	341	0.20
60	16.66	33.80	5.30	326	75	15.79	33.85	5.50	24.94	303	0.29
69	16.15	33.87	5.59	310	100	14.85	33.81	5.25	25.10	287	0.36
83	15.38	33.82	5.38	297	150	10.40	34.00	2.25	26.13	189	0.48
98	14.92	33.81	5.27	288	200	10.06	34.14	1.78	26.29	174	0.58
112	13.16	33.71	5.01	260	250	9.80	34.24	1.50	26.42	162	0.66
135a)	11.05	33.57	4.25	233	300	9.54	34.32	1.12	26.52	153	0.74
142p	10.56	33.78	3.10	209	400	8.36	34.36	0.66	26.75	130	0.89
173p	10.28	34.10	1.94	180	500	7.21	34.38	0.37	26.92	114	1.02
217p	9.92	34.18	1.69	169							
288p	9.64	34.31	1.23	155							
381p	8.48	34.35	0.71	134							
504p	7.18	34.39	0.36	113							

113.30

PAOLINA-T; October 13, 1958; 0655 GCT; 29°23.5'N, 115°23.5'W; sounding, 40 fm; wind, 280°, force 3; weather, clear; sea, moderate; wire angle, 00°.

4	21.20	33.75	5.36	439	0	21.2	(33.75)	(5.36)	(23.50)	(439)	(0.00)
14	21.18	33.72	5.44	440	10	21.19	33.73	5.41	23.49	440	0.04
29	17.50	33.58	5.55	361	20	19.80	33.65	5.50	23.81	410	0.09
49	15.70	33.60	5.00	319	30	17.49	33.58	5.55	24.34	359	0.12
69	15.06	33.89	3.16	285	50	15.69	33.60	4.99	24.77	319	0.19

113.35

PAOLINA-T; October 13, 1958; 0429 GCT; 29°18'N, 115°35.5'W; sounding, 120 fm; wind, 340°, force 5; weather, partly cloudy; sea, very rough; wire angle, 25°.

0	20.58	33.74	5.22	423	0	20.58	33.74	5.22	23.67	423	0.00
12	20.56	33.73	5.09	423	10	20.57	33.73	5.16	23.67	423	0.04
21	20.40	33.75	5.28	418	20	20.42	33.75	5.26	23.72	419	0.08
40	16.62	33.75	5.11	328	30	17.38	33.75	5.18	24.49	346	0.12
63	15.12	33.69	4.65	301	50	15.98	33.73	4.97	24.80	316	0.19
87	13.42	33.84	2.55	256	75	14.34	33.74	3.80	25.16	282	0.26
112	12.04	34.11	1.56	210	100	12.40	34.02	1.77	25.77	224	0.33
149	11.52	34.24	1.19	191	150	11.51	34.24	1.18	26.11	191	0.43
189	11.02	34.37	0.95	173							

113.40

PAOLINA-T; October 13, 1958; 0043 GCT; 29°08'N, 115°54'W; sounding, 700 fm; wind, 330°, force 5; weather, missing; sea, very rough; wire angle, 22°.

0	21.42	33.78	5.14	442	0	21.42	33.78	5.14	23.47	442	0.00
12	21.42	33.78	5.17	442	10	21.42	33.78	5.16	23.47	442	0.04
30	20.68	33.70	5.30	429	20	21.41	33.77	5.18	23.47	442	0.09
43	18.38	33.60	5.51	380	30	20.68	33.70	5.30	23.61	429	0.13
52	16.72	33.58	5.46	343	50	17.08	33.58	5.48	24.43	351	0.21
60	15.32	33.59	5.19	312	75	14.42	33.60	4.77	25.04	293	0.29
70	14.79	33.58	4.98	302	100	11.65	33.72	3.51	25.68	232	0.36
86	13.38	33.69	4.08	266	150	11.20	34.22	1.62	26.16	187	0.47
97	11.91	33.70	3.63	238	200	10.66	34.42	0.86	26.41	163	0.56
109	11.37	33.78	3.22	222	250	9.77	34.42	0.84	26.56	149	0.64
128	10.62	33.86	2.77	204	300	8.98	34.41	0.68	26.68	138	0.71
150	11.20	34.22	1.62	187	400	7.88	34.40	0.57	26.84	122	0.84
180	10.95	34.41	0.87	169	500	6.80	34.38	0.38	26.99	108	0.96
223	10.26	34.42	0.91	157							
292	9.08	34.41	0.70	139							
383	8.02	34.40	0.59	124							
521	6.56	34.38	0.32	105							

a) Depth uncertain, possible pretrip; alternate depth, 117 meters.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10 cm/g	ΔD dyn. m
113.50	PAOLINA-T; October 12, 1958; 1755 GCT; 28°46'N, 116°32.5'W; sounding, 2000 fm; wind, 340°, force 5; weather, cloudy; sea, very rough; wire angle, 13°.										
4	22.00	33.80	4.80	456	0	22.0	(33.80)	(4.80)	(23.32)	(456)	(0.00)
14	21.98	33.78	4.37	457	10	21.99	33.79	4.54	23.32	457	0.04
33	20.53	33.66	5.01	428	20	21.96	33.78	4.37	23.32	456	0.09
47	16.40	33.48	5.69	344	30	21.95	33.78	4.36	23.32	456	0.14
57	15.40	33.55	5.00	317	50	16.03	33.50	5.46	24.62	333	0.22
67	14.19	33.55	4.89	292	75	13.50	33.56	4.50	25.20	278	0.29
76	13.48	33.56	4.49	278	100	11.59	33.55	4.78	25.56	244	0.36
96	11.90	33.55	4.75	249	150	10.05	33.70		25.94	207	0.47
110	11.04	33.55	4.83	234	200	10.20	34.24	1.60	26.34	169	0.57
124	10.57	33.57	5.25u	225	250	10.01	34.46	0.78	26.55	149	0.65
173	9.74	33.91	2.75	186	300	9.40	34.49	0.59	26.66	138	0.72
209	10.38	34.35	1.18	163	400	8.10	34.45	0.51	26.84	122	0.86
259	9.88	34.47	0.70	147	500	6.88	34.43	0.41	27.01	106	0.98
337	8.94	34.49	0.53	130	600	(6.10)	(34.46)		(27.14)	(94)	(1.08)
437	7.54	34.42	0.50	116							
580	6.28	34.45	0.33	97							
113.60	PAOLINA-T; October 12, 1958; 0949 GCT; 28°23'N, 117°11'W; sounding, 2000 fm; wind, 330°, force 5; weather, clear; sea, rough; wire angle, 15°.										
0	22.19	33.89	4.96	455	0	22.19	33.89	4.96	23.34	455	0.00
10	22.19	33.87	4.84	456	10	22.19	33.87	4.84	23.32	456	0.04
29	22.19	33.87	4.95	456	20	22.19	33.87	4.90	23.32	456	0.09
45	20.80	33.86	5.34	420	30	22.19	33.87	4.95	23.32	456	0.14
55	18.68	33.80	5.60	373	50	19.67	33.83	5.40	23.98	394	0.22
64	18.08	33.80	5.62	358	75	17.48	33.81	5.44	24.50	344	0.31
73	17.60	33.82	5.44	346	100	16.05	33.70	5.48	24.76	320	0.40
92	16.50	33.70	5.48	330	150	10.80	33.57	4.49	25.72	228	0.54
105	15.72	33.69	5.48	313	200	9.75	33.97	2.82	26.22	181	0.64
119	13.42	33.55	5.10	277	250	9.61	34.24	1.55	26.44	160	0.73
142	11.34	33.53	4.80	240	300	8.73	34.21	1.53	26.57	148	0.81
168	10.10a)	33.68	3.76	209	400	7.42	34.26	0.93	26.80	126	0.95
203	9.72	33.98	2.72	180	500	6.72	34.33	0.52	26.96	111	1.08
252	9.60	34.24	1.54	160							
332	8.14	34.20	1.52	140							
432	7.20	34.29	0.74	120							
573	6.09	34.37	0.29	100							
113.70	PAOLINA-T; October 12, 1958; 0241 GCT; 28°02.5'N, 117°57'W; sounding, 1800 fm; wind, 330°, force 4; weather, cloudy; sea, rough; wire angle, 10°.										
0	21.82	33.77	5.05	454	0	21.82	33.77	5.05	23.35	454	0.00
13	21.82	33.75	4.63	455	10	21.82	33.76	4.75	23.34	455	0.04
32	21.52	33.78	4.99	445	20	21.82	33.75	4.63	23.34	455	0.09
56	17.62	33.78	5.73	349	30	21.65	33.76	4.82	23.39	450	0.14
66	16.84	33.75	5.51	334	50	18.25	33.78	5.70	24.30	364	0.22
76	16.18	33.80	5.64	315	75	16.23	33.80	5.63	24.79	317	0.30
85	15.60	33.78	5.56	304	100	13.98	33.80	5.11	25.29	269	0.38
100	13.98	33.80	5.11	269	150	10.60	33.68	4.04	25.84	217	0.50
114	12.34	33.58	4.57	255	200	9.17	33.98	2.91	26.32	171	0.60
134	11.19	33.65	3.93	229	250	8.69	34.13	2.22	26.50	154	0.68
154	10.00	33.66	4.15	209	300	8.05	34.17	1.55	26.64	141	0.76
178	9.56	33.84	3.32	188	400	7.20	34.26	0.74	26.83	123	0.90
202	9.13	33.98	2.87	171	500	6.60	34.32	0.41	26.96	110	1.02
251	8.68	34.13	2.21	154							
330	7.70	34.20	1.25	134							
429	7.01	34.28	0.60	119							
558	6.13	34.34	0.28	103							

a) Alternate value, 10.34°C, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED			SIO
Z	T	S	O_2	δT_{-5}^{3}	Z	T	S	O_2	σ_t	δT_{-5}^{3}	ΔD	CCOFI
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m	5810

PAOLINA-T; October 11, 1958; 2049 GCT; 27°44'N, 118°33.5'W; sounding, 2000+ fm; wind, 330°, force 3; weather, partly cloudy; sea, moderate; wire angle, 09°. 113.80

0	22.54	33.86	4.86	466	0	22.54	33.86	4.86	23.22	466	0.00
11	22.34	33.82	4.92	464	10	22.35	33.82	4.92	23.24	464	0.05
30	22.31	33.84	4.80	461	20	22.31	33.83	4.85	23.25	463	0.09
55	15.92	33.57	5.44	326	30	22.31	33.84	4.80	23.27	461	0.14
64	14.60	33.58	5.05	298	50	16.85	33.60	5.39	24.49	345	0.22
74	13.24	33.57	4.62	272	75	13.22	33.57	4.61	25.26	272	0.30
85	12.56	33.56	4.29	260	100	11.78	33.62	3.82	25.58	241	0.36
100	11.78	33.62	3.82	241	150	10.03	33.90	2.82	26.11	191	0.47
114	11.07	33.75	3.30	220	200	9.26	34.17	1.91	26.44	160	0.56
133	10.29	33.79	3.24	204	250	8.66	34.25	1.30	26.60	144	0.64
153	9.96	33.92	2.61	188	300	8.19	34.30	0.98	26.72	134	0.71
178	9.39	34.03	2.35	172	400	7.42	34.38	0.48	26.89	117	0.84
201	9.26	34.17	1.91	160	500	6.58	34.40	0.27	27.02	104	0.96
250	8.66	34.25	1.30	144							
328	7.95	34.32	0.82	128							
427	7.22	34.40	0.36	113							
557	5.98	34.40	0.23	97							

PAOLINA-T; October 11, 1958; 1500 GCT; 27°26.5'N, 119°09'W; sounding, 2000+ fm; wind, 310°, force 2; weather, partly cloudy; sea, moderate; wire angle, 03°. 113.90

0	22.30	33.86	4.73	460	0	22.30	33.86	4.73	23.28	460	0.00
12	22.30	33.82	4.85	463	10	22.30	33.82	4.84	23.26	463	0.05
32	22.31	33.86	4.86	460	20	22.30	33.84	4.85	23.27	461	0.09
57	15.10	33.62	5.22	306	30	22.31	33.86	4.85	23.28	460	0.14
66	13.55	33.60	4.48	276	50	20.00	33.78	4.99	23.85	406	0.22
76	12.72	33.60	4.28	260	75	12.74	33.60	4.29	25.38	260	0.31
86	11.60	33.64	3.58	237	100	11.06	33.64	3.75	25.72	228	0.37
102	10.80	33.61	3.82	225	150	9.88	33.94	2.67	26.16	186	0.48
116	10.62	33.75	3.05	212	200	9.17	34.17	2.00	26.46	158	0.56
136	10.35	33.89	2.76	197	250	8.79	34.23	1.37	26.57	148	0.64
154	9.76	33.95	2.63	183	300	7.97	34.24	1.17	26.70	135	0.72
179	9.36	34.04	2.34	170	400	7.19	34.40	0.45	26.94	112	0.84
204	9.12	34.18	1.88	156	500	6.41	34.40	0.27	27.04	103	0.96
252	8.78	34.23	1.36	147							
331	7.46	34.24	1.05	128							
429	7.08	34.40	0.37	111							
559	5.79	34.39	0.25	95							

PAOLINA-T; October 9, 1958; 1118 GCT; 28°53'N, 117°38'W; sounding, 48 fm; wind, 270°, force 2; weather, clear; sea, slight; wire angle, 00°. 117.26

0	22.34	33.69	5.14	473	0	22.34	33.69	5.14	23.15	473	0.00
11	22.33	33.72	5.24	471	10	22.33	33.72	5.23	23.17	471	0.05
31	19.22	33.63	5.51	398	20	21.75	33.70	5.34	23.32	457	0.09
51	16.04	33.60	5.14	327	30	19.36	33.63	5.51	23.90	401	0.14
76	14.04	33.69	2.85	279	50	16.07	33.60	5.15	24.68	328	0.21
					75	14.05	33.69	2.86	25.18	279	0.28

PAOLINA-T; October 9, 1958; 1413 GCT; 28°44.5'N, 114°52.5'W; sounding, 59 fm; wind, 290°, force 3; weather, cloudy; sea, rough; wire angle, 05°. 117.30

0	22.54	33.78	4.73	472	0	22.54	33.78	4.73	23.16	472	0.00
13	22.56	33.78	4.88	473	10	22.55	33.78	4.82	23.16	472	0.05
23	22.54	33.78	4.82	472	20	22.54	33.78	4.84	23.16	472	0.09
44	22.24	33.83	4.86	460	30	22.53	33.78	4.82	23.17	471	0.14
63	19.48	33.71	4.96	398	50	21.57	33.80	4.91	23.44	445	0.23
88	14.39	33.80	2.04	278	75	17.28	33.74	3.86	24.50	344	0.33

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5810

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m

117.35 PAOLINA-T; October 9, 1958; 1727 GCT; 28°31.5'N, 115°14'W; sounding, 80 fm; wind, 280°, force 3; weather, cloudy; sea, rough; wire angle, 03°.

0	22.68	33.83	4.88	472	0	22.68	33.83	4.88	23.16	472	0.00
11	22.68	33.86	4.92	470	10	22.68	33.86	4.91	23.18	470	0.05
31	19.54	33.70	5.36	400	20	22.26	33.84	5.03	23.28	460	0.09
52	16.82	33.53	5.60	349	30	19.60	33.70	5.34	23.90	402	0.14
76	14.24	33.69	4.32	283	50	17.14	33.54	5.59	24.39	355	0.21
102	12.64	33.78	3.68	245	75	14.30	33.68	4.36	25.13	284	0.29
127	11.62	33.91	1.86	217	100	12.75	33.78	3.73	25.51	248	0.36

117.40 PAOLINA-T; October 9, 1958; 2343 GCT; 28°28.5'N, 115°36'W; sounding, 540 fm; wind, 310°, force 3; weather, cloudy; sea, moderate; wire angle, 04°.

0	22.23	33.73	5.05	468	0	22.23	33.73	5.05	23.21	468	0.00
11	22.20	33.77	5.11	464	10	22.20	33.76	5.11	23.24	465	0.05
31	19.36	33.58	5.52	405	20	22.20	33.77	5.11	23.25	463	0.09
41	17.14	33.52	5.58	357	30	19.80	33.60	5.48	23.77	414	0.14
51	16.03	33.57	5.69	329	50	16.06	33.57	5.68	24.66	330	0.21
61	15.64	33.51	5.69	325	75	14.92	33.62	5.20	24.96	301	0.29
71	15.04	33.54	5.50	310	100	12.93	33.83	3.50	25.52	247	0.36
85	14.64	33.80	3.98	283	150	11.68	34.00	2.50	25.89	212	0.48
100	12.93	33.83	3.50	247	200	11.34	34.26	1.38	26.16	187	0.58
115	12.12	33.81	3.34	234	250	10.57	34.45	0.74	26.45	159	0.67
139	11.74	33.93	2.70	218	300	9.76	34.43	0.67	26.58	147	0.75
167	11.66	34.04	2.21	208	400	7.78	34.40	0.50	26.86	120	0.88
201	11.34	34.27	1.38	186	500	6.65	34.38	0.31	27.00	106	1.00
249	10.58	34.45	0.74	160							
329	9.24	34.42	0.64	140							
428	7.24	34.39	0.42	114							
560	6.18	34.38	0.23	100							

117.50 PAOLINA-T; October 10, 1958; 0642 GCT; 28°10.5'N, 116°15'W; sounding, 2400 fm; wind, 320°, force 3; weather, missing; sea, moderate; wire angle, 06°.

0	21.94	33.69	4.36	463	0	21.94	33.69	4.36	23.26	463	0.00
12	21.92	33.69	4.68	463	10	21.93	33.69	4.60	23.26	463	0.05
31	19.57	33.62	5.02	406	20	21.98	33.68	4.70	23.24	465	0.09
41	18.08	33.55	5.46	377	30	20.80	33.66	4.86	23.55	435	0.14
51	16.34	33.57	5.46	335	50	16.50	33.57	5.46	24.56	339	0.21
60	15.32	33.55	4.86	315	75	14.47	33.60	5.28	25.04	294	0.29
71	14.66	33.58	5.33	300	100	12.48	33.62	4.93	25.44	254	0.36
85	14.04	33.68	5.14	280	150	10.20	33.78	3.37	25.99	203	0.48
99	12.56	33.62	4.96	256	200	11.12	34.43	0.79	26.33	170	0.57
114	11.40	33.57	4.29	239	250	10.44	34.47	0.65	26.48	156	0.66
138	10.08	33.64	3.68	211	300	9.80	34.44	0.56	26.57	148	0.74
167	11.59a)	34.27	1.20	190	400	8.10	34.36	0.51	26.78	128	0.88
201	11.12	34.43	0.79	170	500	7.06	34.37	0.38	26.94	113	1.01
250	10.44	34.47	0.65	156							
330	9.40	34.42	0.53	143							
432	7.54	34.34	0.51	121							
563	6.76	34.41	0.23	105							

a) Alternate value, 11.86°C, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

PAOLINA-T; October 10, 1958; 1333, 1425 GCT; 27°51.5'N, 116°55.5'W; sounding, 2000 fm; wind, 320°, force 2; weather, overcast; sea, moderate; wire angle, 00°, 05°. 117.60

0	22.30	33.84	5.02	462	0	22.30	33.84	5.02	23.27	462	0.00
12	22.32	33.84	5.01	462	10	22.32	33.84	5.01	23.27	462	0.05
31	20.34	33.67	5.51	423	20	22.31	33.84	5.02	23.27	462	0.09
41	17.04	33.62	5.67	348	30	20.98	33.72	5.38	23.54	436	0.14
51	16.00	33.55	5.79	329	50	16.07	33.56	5.78	24.65	330	0.21
					75	14.70	33.73	5.13	25.08	289	0.29
60	15.55a)	33.53	5.72	321	100	13.28	33.95	2.51	25.54	245	0.36
70	15.53	33.77	5.43	303	150	12.40	34.32	1.04	26.00	202	0.47
85	13.24	33.66	4.40	266	200	11.69	34.42	0.80	26.22	181	0.57
100	13.28	33.95	2.51	245	250	11.04	34.47	0.70	26.38	166	0.66
114	12.92	34.16	1.46	223	300	10.10	34.46	0.61	26.54	151	0.74
138	12.60	34.31	1.05	206	400	8.72	34.44	0.53	26.75	130	0.89
167	12.19	34.34	0.95	196	500	7.54	34.42	0.46	26.91	116	1.02
201	11.68	34.42	0.79	181							
251	11.02	34.47	0.69	166							
330	9.50	34.45	0.60	142							
431	8.38	34.44	0.51	126							
563	6.72	34.40	0.44	106							

PAOLINA-T; October 10, 1958; 2030 GCT; 27°32.5'N, 117°32.5'W; sounding, 1820 fm; wind, direction missing, force 1; weather, partly cloudy; sea, moderate; wire angle, 03°. 117.70

0	22.52	33.77	4.24	472	0	22.52	33.77	4.24	23.16	472	0.00
12	22.34	33.74	4.58	470	10	22.35	33.74	4.57	23.18	470	0.05
32	22.20	33.77	4.54	464	20	22.26	33.76	4.57	23.22	466	0.09
42	20.60	33.72	5.10	426	30	22.22	33.77	4.55	23.24	464	0.14
52	18.62	33.74	5.22	376	50	18.88	33.74	5.21	24.11	381	0.22
63	17.55	33.69	5.32	354	75	16.25	33.56	5.69	24.61	334	0.31
72	16.42	33.55	5.75	339	100	14.69	33.64	5.06	25.04	292	0.39
87	15.77	33.65	5.39	317	150	11.60	33.86	2.94	25.80	221	0.52
101	14.46	33.64	5.05	291	200	10.91	34.29	1.40	26.26	177	0.62
116	12.92	33.65	3.86	260	250	10.42	34.46	0.74	26.48	156	0.71
139	12.18	33.84	2.96	232	300	9.10	34.36	0.86	26.62	143	0.79
168	10.06	33.88	2.97	183	400	7.51	34.31	0.64	26.82	123	0.92
201	10.92	34.30	1.38	177	500	6.73	34.32	0.37	26.96	111	1.05
250	10.42	34.46	0.74	156							
327	8.40	34.31	0.91	136							
426	7.30	34.31	0.56	120							
555	6.27	34.34	0.28	105							

PAOLINA-T; October 11, 1958; 0253, 0333 GCT; 27°10.5'N, 118°16'W; sounding, 2100 fm; wind, 280°, force 2; weather, missing; sea, rough; wire angle, 00°, 02°. 117.80

0	22.48	34.05	4.84	451	0	22.48	34.05	4.84	23.38	451	0.00
11	22.34	34.02	4.96	450	10	22.35	34.02	4.95	23.39	450	0.04
31	22.24	33.99	4.91	450	20	22.26	34.00	4.94	23.39	450	0.09
56	18.76	33.82	5.16	373	30	22.24	33.99	4.91	23.39	450	0.14
66	18.16	33.84	5.35	357	50	19.90	33.86	5.03	23.94	398	0.22
76	17.60	33.78	5.35	349	75	17.65	33.78	5.35	24.45	349	0.31
86	17.20	33.78	5.32	339	100	16.32	33.80	5.45	24.76	319	0.40
					150	11.32	33.59	4.15	25.64	236	0.54
98	16.40	33.80	5.45	320	200	9.37	33.97	2.84	26.28	175	0.64
112	14.86	33.71	5.35	294	250	8.75	34.14	2.14	26.51	153	0.73
131	12.94	33.58	4.65	265	300	8.26	34.26	1.42	26.67	138	0.80
150	11.32	33.59	4.15	236	400	7.27	34.34	0.55	26.88	118	0.94
173	9.91	33.77	3.50	199	500	6.48	34.36	0.34	27.00	107	1.06
199	9.38	33.97	2.85	176							
249	8.76	34.14	2.15	154							
327	8.02	34.30	1.00	131							
427	7.02	34.34	0.46	115							
555	6.04	34.37	0.27	100							

a) Alternate value, 15.74°C, not used in interpolation.

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5810

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

117.90 PAOLINA-T; October 11, 1958; 0906 GCT; 26°54'N, 118°49.5'W; sounding, 2000+ fm; wind, direction missing, force 1; weather, clear; sea, moderate; wire angle, 00°.

0	21.93	33.91	4.55a)	446	0	21.93	33.91	4.55	23.43	446	0.00
11	21.86	33.88	4.76	447	10	21.87	33.89	4.75	23.42	447	0.04
31	21.83	33.90	4.73	444	20	21.85	33.89	4.75	23.43	446	0.09
56	18.44	33.85	5.48	363	30	21.84	33.90	4.74	23.44	445	0.13
66	17.76	33.83	5.35	348	50	19.10	33.86	5.36	24.14	378	0.22
76	17.40	33.84	5.54	340	75	17.45	33.84	5.53	24.54	340	0.30
86	16.94	33.84	5.14	329	100	15.76	33.78	5.16	24.89	307	0.39
101	15.70	33.78	5.16	307	150	10.54	33.66	4.11	25.83	218	0.52
116	13.90	33.71	4.95	274	200	9.38	33.94	2.99	26.25	178	0.62
135	11.63	33.66	4.25	236	250	8.52	34.14	2.08	26.54	150	0.70
155	10.37	33.66	4.08	214	300	7.97	34.22	1.53	26.69	136	0.78
179	10.04b)	33.79	3.47	200	400	6.92	34.32	0.72	26.92	114	0.91
203	9.25c)	33.95	2.93	175	500	6.28	34.38	0.42	27.05	102	1.02
252	8.48	34.14	2.04	150							
332	7.62	34.26	1.26	129							
432	6.67	34.34	0.57	110							
564	5.92	34.42	0.30	94							

118.39 PAOLINA-T; October 9, 1958; 2006 GCT; 28°18.5'N, 115°23'W; sounding, 115 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 02°.

0	22.81	33.84	5.05	475	0	22.81	33.84	5.05	23.13	475	0.00
11	22.52	33.86	5.02	466	10	22.54	33.86	5.03	23.22	466	0.05
31	19.20	33.62	4.83	398	20	21.40	33.78	4.90	23.48	442	0.09
51	16.56	33.56	4.87	341	30	19.35	33.63	4.83	23.90	401	0.13
76	14.66	33.59	5.22	299	50	16.70	33.56	4.86	24.50	344	0.21
102	13.04	33.73	3.86	257	75	14.75	33.59	5.21	24.96	301	0.29
127	12.27	33.95	2.32	226	100	13.30	33.69	4.24	25.34	264	0.36
167	11.61	34.16	1.36	199	150	11.88	34.07	1.70	25.91	210	0.48
208	11.02	34.33	0.87	176	200	11.15	34.30	0.94	26.22	180	0.58

119.33 BLACK DOUGLAS; October 10, 1958; 1741 GCT; 28°19'N, 114°53'W; sounding, 61 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 15°.

0	22.98	33.77		484	0	22.98	33.77		23.03	484	0.00
9	22.98	33.80		482	10	22.98	33.80		23.05	482	0.05
28	22.94	33.78		482	20	22.96	33.79		23.05	482	0.10
46	22.36	33.75		469	30	22.93	33.78		23.05	482	0.14
69	18.78	33.86		370	50	21.50	33.75		23.43	446	0.24

120.25 BLACK DOUGLAS; October 10, 1958; 1154 GCT; 28°23'N, 114°14.5'W; sounding, 31 fm; wind, 270°, force 2; weather, cloudy; sea, slight; wire angle, 00°.

0	22.28	33.78	5.14	466	0	22.28	33.78	5.14	23.22	466	0.00
9	22.27	33.80	5.17	464	10	22.26	33.80	5.18	23.25	463	0.05
28	18.48	33.70	5.41	374	20	20.70	33.76	5.27	23.65	425	0.09
38	16.75	33.66	5.14	338	30	18.20	33.69	5.38	24.24	368	0.13

120.30 BLACK DOUGLAS; October 10, 1958; 1445 GCT; 28°13'N, 114°34'W; sounding, 51 fm; wind, 300°, force 3; weather, cloudy; sea, moderate; wire angle, 10°.

0	22.54	33.85	5.08	467	0	22.54	33.85	5.08	23.21	467	0.00
10	22.54	33.84	5.00	468	10	22.54	33.84	5.00	23.20	468	0.05
29	21.18	33.78	5.18	436	20	22.08	33.81	5.05	23.31	458	0.09
47	18.38	33.68	5.00	374	30	21.08	33.78	5.18	23.56	434	0.14
70	16.21	33.68	4.54	325	50	18.00	33.68	4.92	24.28	365	0.22

a) Alternate value, 4.80 ml/L, not used in interpolation.
b) Alternate value, 9.90°C, not used in interpolation.
c) Mean value of 9.19 and 9.31°C.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	$\delta_{T_3}^{-5}$	Z	T	S	O_2	σ_t	$\delta_{T_3}^{-5}$	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

120.35

BLACK DOUGLAS; October 10, 1958; 2015 GCT; 28°03'N, 114°54'W; sounding, 47 fm; wind, 320°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.

0	23.34	33.88	4.97	486	0	23.34	33.88	4.97	23.01	486	0.00
10	22.84	33.84	4.99	476	10	22.84	33.84	4.99	23.12	476	0.05
29	22.73	33.84	4.98	472	20	22.75	33.84	4.99	23.14	474	0.10
48	22.70	33.92	5.02	466	30	22.73	33.84	4.99	23.16	472	0.14

120.45

BLACK DOUGLAS; October 11, 1958; 0147 GCT; 27°43'N, 115°33'W; sounding, 1150 fm; wind, 340°, force 4; weather, partly cloudy; sea, moderate; wire angle, 25°.

0	22.42	33.80	4.87	468	0	22.42	33.80	4.87	23.20	468	0.00
9	22.43	33.78	5.07	469	10	22.44	33.78	5.07	23.19	469	0.05
27	22.43	33.84	5.09	465	20	22.44	33.82	5.08	23.22	466	0.09
40	18.65	33.58	5.98	388	30	22.20	33.82	5.17	23.29	460	0.14
48	17.17	33.56	6.04	354	50	17.00	33.57	6.01	24.44	350	0.22
56	16.62	33.60	5.93	340	75	14.80	33.54	5.73	24.92	305	0.30
65	15.94	33.58	5.88	326	100	13.02	33.58	5.09	25.31	268	0.38
82	14.18	33.53	5.55	293	150	10.50	33.76	3.43	25.92	209	0.50
93	13.46	33.56	5.28	277	200	11.10	34.33	1.30	26.26	177	0.59
106	12.59	33.59	4.89	258	250	10.35	34.41	0.92	26.46	158	0.68
126	10.89	33.56	4.66	231	300	9.06	34.33	1.17	26.61	144	0.76
150	10.50	33.76	3.43	209	400	8.02	34.38	0.53	26.81	125	0.90
182	11.12	34.27	1.45	182	500	6.70	34.34	0.33	26.96	110	1.02
225	10.89	34.45	0.81	165							
293	9.14	34.33	1.19	146							
381	8.24	34.38	0.59	128							
509	6.60	34.34	0.32	109							

120.50

BLACK DOUGLAS; October 11, 1958; 0519 GCT; 27°33'N, 115°52.5'W; sounding, 2000+ fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 12°.

0	22.10	33.73	5.09	464	0	22.10	33.73	5.09	23.24	464	0.00
9	22.10	33.76	4.89	462	10	22.10	33.76	4.90	23.26	462	0.05
28	22.12	33.74	5.01	464	20	22.11	33.74	4.98	23.24	464	0.09
42	19.12	33.57	5.37	400	30	22.10	33.74	5.03	23.24	464	0.14
51	17.68	33.55	5.75	367	50	17.83	33.55	5.72	24.22	371	0.22
60	16.95	33.55	5.59	350	75	16.16	33.63	5.39	24.68	327	0.31
69	16.48	33.58	5.58	338	100	13.86	33.75	4.29	25.26	272	0.39
88	15.26	33.78	4.37	297	150	10.59	33.90	3.39	26.01	201	0.50
101	13.80	33.75	4.29	270	200	10.55	34.48	1.50	26.48	156	0.60
115	11.88	33.55	4.93	248	250	10.34	34.52	0.69	26.54	150	0.68
136	10.44	33.68	4.13	214	300	9.50	34.42	0.68	26.60	144	0.75
162	10.74	34.05	2.57	192	400	8.17	34.39	0.48	26.80	126	0.89
197	10.58	-	1.70		500	7.05	34.38	0.46	26.94	113	1.02
245	10.40	34.52	0.69	151							
322	9.16	34.38	0.68	142							
417	7.99	34.39	0.46	124							
549	6.53	34.36	0.46	106							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

120.60 BLACK DOUGLAS; October 11, 1958; 1124 GCT; 27°14.5'N, 116°33'W; sounding, 2000+ fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 00°.

0	21.63	33.56	5.16	464	0	21.63	33.56	5.16	23.24	464	0.00
10	21.63	33.58	5.17	462	10	21.63	33.58	5.17	23.26	462	0.05
29	19.21	33.53	5.74	405	20	20.98	33.56	5.36	23.43	446	0.09
43	16.51	33.53	5.96	342	30	19.06	33.53	5.76	23.90	401	0.13
53	15.46	33.54	5.82	319	50	15.79	33.54	5.90	24.69	326	0.21
62	14.51	33.55	5.24	298	75	13.02	33.65	4.56	25.37	262	0.28
71	13.49	33.65	4.56	271	100	11.67	33.77	4.00	25.72	228	0.34
90	11.98	33.65	4.56	243	150	11.60	34.19	1.52	26.05	197	0.45
104	11.60	33.84	3.06	222	200	10.33	34.23	1.52	26.32	171	0.54
117	11.82	34.04	2.14	211	250	10.11	34.46	0.65	26.54	151	0.63
140	11.72	34.14	1.74	202	300	9.47	34.49	0.56	26.67	138	0.70
167	11.39	34.29	1.30	185	400	8.15	34.43	0.35	26.83	123	0.84
203	10.22	34.23	1.52	170	500	7.12	34.40	0.29	26.96	110	0.96
253	10.10	34.47	0.63	150							
330	8.95	34.47	0.56	132							
426	7.86	34.42	0.30	120							
559	6.52	34.40	0.29	103							

120.70 BLACK DOUGLAS; October 11, 1958; 1650 GCT; 26°52.5'N, 117°10'W; sounding, 2000+ fm; wind, 340°, force 3; weather, partly cloudy; sea, rough; wire angle, 22°.

0	22.02	33.71	5.11	464	0	22.02	33.71	5.11	23.24	464	0.00
10	22.02	33.73	5.17	462	10	22.02	33.73	5.17	23.26	462	0.05
27	21.78	33.71	5.38	457	20	21.90	33.72	5.28	23.30	459	0.09
41	18.68	33.86	5.89	368	30	21.63	33.72	5.41	23.36	452	0.14
49	17.88	33.83	5.99	351	50	17.86	33.83	5.99	24.43	351	0.22
58	17.40	33.82	5.85	341	75	16.30	33.76	5.68	24.75	321	0.30
67	16.91	33.78	5.92	333	100	13.47	33.88	3.73	25.45	254	0.38
84	14.88	33.73	4.94	293	150	12.60	34.25	1.70	25.91	210	0.49
96	13.46	33.73	4.22	264	200	11.94	34.52	0.69	26.25	178	0.59
109	13.54	34.07	2.62	241	250	10.47	34.47	0.93	26.48	156	0.68
129	12.98	34.13	2.14	226	300	9.16	34.34	1.16	26.60	145	0.76
154	12.54	34.27	1.52	208	400	8.27	34.40	0.62	26.79	127	0.90
186	12.25	34.52	0.68	184	500	7.35	34.42	0.32	26.94	113	1.02
231	11.00	34.51	0.82	162							
302	9.10	34.34	1.16	144							
392	8.36	34.40	0.63	128							
522	7.14	34.42	0.27	110							

120.80 BLACK DOUGLAS; October 11, 1958; 2233 GCT; 26°32.5'N, 117°48.5'W; sounding, 2000+ fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, missing.

0	22.17	33.71	5.11	467	0	22.17	33.71	5.11	23.21	467	0.00
10	22.16	33.68	5.20	468	10	22.16	33.68	5.20	23.20	468	0.05
28	22.00	33.68	5.51	465	20	22.08	33.68	5.39	23.22	466	0.09
41	20.51	33.67	5.51	427	30	21.97	33.68	5.51	23.24	464	0.14
50	18.73	33.69	5.53	382	50	18.73	33.69	5.53	24.11	382	0.22
59	17.14	33.74	5.57	341	75	15.50	33.60	5.61	24.81	315	0.31
68	16.11	33.62	5.59	327	100	14.80	33.80	4.34	25.11	286	0.39
86	14.80	33.60	5.64	301	150	10.40	33.62	4.01	25.83	218	0.52
98	14.82	33.80	4.39	287	200	9.42	33.94	2.98	26.25	178	0.62
112	13.94	33.81	4.11	268	250	8.84	34.10	2.20	26.46	158	0.70
133	11.19	33.55	4.25	236	300	8.44	34.23	1.44	26.62	143	0.78
158	10.12	33.66	3.83	211	400	7.50	34.34	0.76	26.85	121	0.92
192	9.54	33.91	3.15	182	500	6.68	34.36	0.41	26.98	109	1.04
240	8.96	34.08	2.34	161							
314	8.31	34.27	1.27	137							
408	7.41	34.34	0.71	120							
541	6.42	34.36	0.33	105							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

120.90

BLACK DOUGLAS; October 12, 1958; 0425 GCT; 26°13'N, 118°27.5'W; sounding, 2000+ fm; wind, 010°, force 3; weather, partly cloudy; sea, rough; wire angle, 15°.

0	22.49	33.95	4.89	459	0	22.49	33.95	4.89	23.30	459	0.00
10	22.48	33.94	4.95	459	10	22.48	33.94	4.95	23.30	459	0.05
29	22.50	33.97	4.96	457	20	22.50	33.95	4.96	23.30	458	0.09
42	22.52	34.03	5.07	453	30	22.50	33.97	4.97	23.31	457	0.14
52	20.20	33.81	5.47	409	50	20.72	33.86	5.37	23.72	418	0.22
61	18.94	33.73	5.76	383	75	17.55	33.68	5.83	24.40	354	0.32
70	17.96	33.68	5.83	364	100	16.22	33.71	5.65	24.72	323	0.41
87	16.70	33.68	5.77	336	150	11.41	33.64	4.66	25.66	234	0.55
100	16.22	33.71a)	5.65	323	200	9.70	33.74	3.73	26.04	198	0.66
114	15.32	33.69	5.41	305	250	8.74	34.07	2.38	26.45	159	0.75
136	13.24	33.60	4.82	270	300	8.09	34.15	1.74	26.62	143	0.83
161	10.75	33.66	4.53	221	400	7.05	34.28	0.77	26.86	120	0.97
195	9.80	33.71	3.85	202	500	6.45	34.32	0.45	26.98	108	1.09
242	8.86	34.04	2.50	163							
317	7.86	34.18	1.52	138							
411	6.98	34.29	0.68	118							
542	6.20	34.34	0.34	104							

123.37

BLACK DOUGLAS; October 14, 1958; 2218 GCT; 27°24'N, 114°39.5'W; sounding, 40 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 00°.

0	24.82	34.33	5.06	496	0	24.82	34.33	5.06	22.91	496	0.00
9	24.46	34.35	5.27	484	10	24.46	34.35	5.27	23.04	484	0.05
28	23.30	34.30	4.89	456	20	24.42	34.35	5.26	23.05	483	0.10
47	18.69	34.02	4.81	357	30	22.90	34.28	4.87	23.44	446	0.14

123.42

BLACK DOUGLAS; October 13, 1958; 1413 GCT; 27°15'N, 115°00'W; sounding, 850 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 05°.

0	23.53	34.25	4.68	465	0	23.53	34.25	4.68	23.24	465	0.00
10	23.54	34.25	4.68	465	10	23.54	34.25	4.68	23.24	465	0.05
29	19.03	33.75	5.61	384	20	21.35	33.99	5.16	23.66	425	0.09
43	16.96	33.58	5.60	348	30	18.80	33.73	5.60	24.12	380	0.13
53	16.22	33.67	5.43	326	50	16.43	33.64	5.46	24.62	332	0.20
62	15.42	33.60	6.20								
72b)	15.04	33.57	5.40								
85b)	14.30	33.68	4.93								
100b)	13.22	33.63	4.62								
120b)	12.92	33.99	3.06								
148b)	12.34	34.23	1.80								
188b)	11.98	34.61	0.53								
250b)	10.94	34.63	0.36								
326b)	9.14	34.48	0.66								
431b)	7.64	34.47	0.31								

a) The salinity values appear as listed on the data sheet. However, there is doubt concerning the correct order of values between 100 and 317 meters.

b) Posttrip; depth too uncertain for interpolation.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_3	Z	T	S	O_2	σ_t	δT_3	ΔD
m	°C	‰	ml/L	-5 10^{-5} cm/g	m	°C	‰	ml/L	g/L	-5 10^{-5} cm/g	dyn. m

123.50 BLACK DOUGLAS; October 13, 1958; 0854 GCT; 26°58'N, 115°30.5'W; sounding, 2000+ fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 18°.

0	22.23	33.82	5.09	461	0	22.23	33.82	5.09	23.28	461	0.00
11	22.22	33.83	5.15	460	10	22.22	33.83	5.14	23.28	460	0.05
30	22.12	33.80	5.18	459	20	22.20	33.82	5.16	23.29	460	0.09
44	18.54	33.80	5.72	369	30	22.12	33.80	5.18	23.29	459	0.14
53	17.18	33.87	5.30	332	50	17.57	33.85	5.38	24.52	342	0.22
62	15.64	33.78	5.16	305	75	15.18	33.86	4.79	25.08	289	0.30
71	15.28	33.83	4.93	294	100	14.05	33.94	3.56	25.38	260	0.37
90	14.76	33.95	3.72	274	150	10.59	33.87	3.28	26.00	202	0.48
103	13.80	33.93	3.57	256	200	9.60	34.18	2.12	26.40	164	0.58
117	11.90	33.68	4.10	239	250	9.87	34.51	0.70	26.62	143	0.66
139	10.92	33.78	3.58	215	300	9.38	34.50	0.40	26.69	136	0.73
166	10.22	33.97	2.90	189	400	7.98	34.40	0.40	26.83	123	0.86
201	9.58	34.18	2.03	164	500	6.82	34.38	0.39	26.98	109	0.99
248	9.88	34.51	0.72	144							
324	9.06	34.49	0.38	133							
419	7.72	34.39	0.41	120							
554	6.22	34.38	0.36	101							

123.60 BLACK DOUGLAS; October 13, 1958; 0203 GCT; 26°38.5'N, 116°08'W; sounding, 2000+ fm; wind, 340°, force 3; weather, cloudy; sea, moderate; wire angle, 19°.

0	22.06	33.75	5.05	462	0	22.06	33.75	5.05	23.27	462	0.00
11	22.04	33.82	5.14	456	10	22.04	33.81	5.13	23.32	456	0.05
29	21.78	33.73	5.13	455	20	21.93	33.78	5.14	23.33	456	0.09
43	16.50	33.75	5.19	326	30	21.77	33.73	5.13	23.34	454	0.14
52	15.26	33.81	4.17	295	50	15.45	33.80	4.36	24.97	300	0.21
61	14.36	33.94	3.33	267	75	13.75	33.94	2.89	25.44	254	0.28
70	14.22	33.99	2.83	260	100	11.63	33.86	3.14	25.79	222	0.34
88	12.60	33.83	3.10	242	150	10.09	33.98	2.64	26.16	187	0.45
102	11.47	33.86	3.14	219	200	9.00	34.16	2.00	26.48	156	0.53
116	11.07	33.93	2.79	207	250	8.70	34.32	1.17	26.66	140	0.61
137	10.40	33.94	2.69	194	300	8.35	34.36	0.78	26.74	132	0.68
163	9.82	34.04	2.60	178	400	7.21	34.36	0.35	26.91	115	0.81
197	9.02	34.15	2.05	157	500	6.47	34.39	0.35	27.03	104	0.92
245	8.72	34.31	1.20	140							
320	8.16	34.37	0.67	128							
415	7.05	34.36	0.34	114							
550	6.10	34.41	0.36	98							

123.70 BLACK DOUGLAS; October 12, 1958; 1938 GCT; 26°18.5'N, 116°47'W; sounding, 2000+ fm; wind, 330°, force 4; weather, cloudy; sea, rough; wire angle, 19°.

0	21.80	33.62	5.05	464	0	21.80	33.62	5.05	23.24	464	0.00
10	21.76	33.64	5.08	461	10	21.76	33.64	5.08	23.28	461	0.05
28	21.68	33.60	4.95	462	20	21.72	33.62	4.97	23.27	462	0.09
41	18.84	33.57	5.85	393	30	21.65	33.60	4.96	23.27	462	0.14
50	17.24	33.66	5.85	349	50	17.24	33.66	5.85	24.45	349	0.22
59	16.75	33.73	5.72	333	75	15.66	33.80	5.48	24.92	304	0.30
68	16.28	33.84	5.68	315	100	12.29	33.62	4.19	25.48	251	0.37
86	13.58	33.59	4.54	277	150	11.47	34.01	2.30	25.94	207	0.49
97	12.31	33.62	4.21	251	200	10.02	34.20	1.85	26.34	169	0.58
110	12.16	33.72	3.54	241	250	9.72	34.31	1.34	26.48	156	0.67
131	11.76	33.95	2.86	216	300	(9.64)	(34.43)	(0.78)	(26.58)	(146)	(0.74)
155	11.41	34.02	2.17	206							
185	10.28	34.14	2.02	178							
228	9.76	34.28	1.59	159							
299	9.64	34.43	0.78	146							
318a)	9.60	34.43	0.69								
491a)	8.46	34.50	0.26								

a) Pretrip; depth too uncertain for interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

BLACK DOUGLAS; October 12, 1958; 1228 GCT; 26°00'N, 117°29'W; sounding, 2000+ fm; wind, 340°, force 3; weather, clear; sea, moderate; wire angle, 19°. 123.80

0	21.94	33.67	5.23	464	0	21.94	33.67	5.23	23.24	464	0.00
10	21.95	33.67	5.17	464	10	21.95	33.67	5.17	23.24	464	0.05
28	21.96	33.69	5.23	463	20	21.95	33.68	5.19	23.25	464	0.09
41	19.11	33.68	5.90	391	30	21.70	33.69	5.33	23.32	456	0.14
50	18.10	33.72	6.00	364	50	18.10	33.72	6.00	24.29	364	0.22
59	17.65	33.72	5.94	354	75	17.28	33.86	5.84	24.60	336	0.31
68	17.49	33.85	5.85	341	100	14.98	33.66	5.67	24.97	300	0.39
85	16.92	33.87	5.84	327	150	10.77	33.63	4.30	25.77	224	0.52
97	15.54	33.66	5.76	312	200	9.30	33.92	3.15	26.25	178	0.62
110	13.74	33.68	5.41	274	250	8.69	34.10	2.34	26.48	156	0.71
131	11.92	33.58	4.65	247	300	8.40	34.25	1.61	26.65	140	0.79
155	10.58	33.64	4.22	220	400	7.60	34.34	0.57	26.84	122	0.92
190	9.50	33.87	3.37	185	500	6.66	34.36	0.40	26.98	109	1.04
236	8.80	34.04	2.57	162							
309	8.37	34.27	1.46	138							
402	7.58	34.34	0.58	122							
535	6.32	34.36	0.36	104							

BLACK DOUGLAS; October 15, 1958; 0324 GCT; 26°55.5'N, 114°06'W; sounding, 45 fm; wind, 320°, force 2; weather, clear; sea, moderate; wire angle, 00°. 127.34

0	24.95	34.53	4.93	485	0	24.95	34.53	4.93	23.02	485	0.00
9	24.92	34.47	4.90	488	10	24.91	34.47	4.90	22.99	488	0.05
28	24.64	34.51	4.93	478	20	24.72	34.50	4.91	23.06	481	0.10
48	20.51	34.11	5.29	395	30	24.59	34.51	4.92	23.12	476	0.14

BLACK DOUGLAS; October 15, 1958; 0713 GCT; 26°43.5'N, 114°29.5'W; sounding, 1650 fm; wind, 260°, force 1; weather, clear; sea, moderate; wire angle, 03°. 127.40

0	24.58	34.39	4.89	485	0	24.58	34.39	4.89	23.02	485	0.00
10	24.55	34.39	4.88	484	10	24.55	34.39	4.88	23.04	484	0.05
29	23.43	34.33	5.04	457	20	24.50	34.39	4.90	23.06	482	0.10
43	19.98	34.14	5.12	380	30	23.10	34.31	5.06	23.40	449	0.14
52	19.30	34.14	4.51	363	50	19.42	34.14	4.57	24.28	366	0.22
62	17.01	33.82	4.70	332	75	16.42	33.94	4.93	24.86	311	0.31
71	16.96	33.96	5.18	321	100	13.40	33.86	3.34	25.46	254	0.38
90	14.55	33.86	4.07	276	150	11.00	34.04	2.44	26.05	197	0.50
103	13.06	33.87	3.20	247	200	11.44	34.56	0.57	26.37	166	0.59
116	12.32	33.88	3.13	232	250	10.57	34.54	0.56	26.52	152	0.67
139	11.14	33.93	2.65	208	300	9.45	34.50	0.69	26.68	138	0.75
165	11.37	34.31	1.37	183	400	7.78	34.36	0.53	26.83	123	0.88
200	11.44	34.56	0.57	166	500	6.76	34.34	0.36	26.95	112	1.00
250	10.57	34.54	0.56	152							
326	8.88	34.47	0.73	131							
423	7.46	34.34	0.47	121							
557	6.29	34.34	0.30	105							

BLACK DOUGLAS; October 15, 1958; 1333 GCT; 26°25'N, 115°09'W; sounding, 2000+ fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 02°. 127.50

0	24.26	34.34	4.69	479	0	24.26	34.34	4.69	23.08	479	0.00
10	24.26	34.27	4.67	484	10	24.26	34.27	4.67	23.03	484	0.05
29	22.27	33.79	4.87	464	20	22.35	33.80	4.86	23.22	466	0.10
43	18.73	33.81	5.71	373	30	22.26	33.79	4.88	23.24	464	0.14
52	17.99	33.75	5.79	360	50	18.13	33.77	5.78	24.32	362	0.22
61	17.22	33.65	5.73	350	75	16.42	33.67	5.48	24.65	330	0.31
71	16.68	33.66	5.56	337	100	14.00	33.64	5.08	25.16	282	0.39
89	15.30	33.72	5.25	302	150	10.87	33.70	3.85	25.80	220	0.51
103	13.50	33.62	4.98	273	200	9.52	33.99	2.62	26.26	177	0.62
116	12.18	33.65	3.95	246	250	9.64	34.38	1.14	26.55	150	0.70
140	11.30	33.66	3.90	230	300	8.77	34.35	1.16	26.67	138	0.77
167	10.10	33.77	3.54	202	400	7.32	34.30	1.01	26.84	122	0.91
202	9.48	34.02	2.58	174	500	6.52	34.35	0.57	27.00	107	1.03
250	9.64	34.38	1.14	150							
325	8.29	34.33	1.15	133							
420	7.16	34.29	0.93	120							
553	6.20	34.40	0.37	100							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
127.60	BLACK DOUGLAS; October 15, 1958; 1939 GCT; 26°05'N, 115°46'W; sounding, 2000+ fm; wind, 320°, force 2; weather, clear; sea, slight; wire angle, 05°.										
0	22.82	-	5.00		0	22.82	(33.71)	5.00	(23.02)	(485)	(0.00)
10	22.48	33.71	5.10	475	10	22.48	33.71	5.10	23.13	475	0.05
29	21.28	34.02	5.50	421	20	22.54	33.78	5.27	23.16	472	0.10
44	19.70	33.95	5.56	386	30	21.16	34.02	5.51	23.72	418	0.14
53	18.40	33.86	5.74	361	50	18.95	33.90	5.67	24.22	372	0.22
62	17.68	33.83	5.74	346	75	17.15	33.86	5.60	24.63	332	0.31
71	17.35	33.87	5.64	336	100	14.56	33.73	5.22	25.11	286	0.39
91	15.71	33.78	5.43	306	150	10.58	33.75	4.04	25.90	211	0.51
103	14.10	33.71	5.12	278	200	10.22	34.23	1.84	26.34	170	0.61
116	12.58	33.63	4.75	255	250	9.70	34.41	1.03	26.56	148	0.69
139	11.00	33.68	4.30	224	300	9.08	34.42	0.93	26.67	138	0.76
165	10.14	33.87	3.30	195	400	7.87	34.40	0.58	26.85	121	0.90
201	10.22	34.24	1.83	170	500	6.95	34.41	0.37	26.98	108	1.02
250	9.70	34.41	1.03	148							
327	8.74	34.42	0.89	132							
424	7.60	34.40	0.49	118							
557	6.45	34.42	0.31	101							
127.70	BLACK DOUGLAS; October 16, 1958; 0142 GCT; 25°45.5'N, 116°23'W; sounding, 2000+ fm; wind, 320°, force 1; weather, clear; sea, moderate; wire angle, 03°.										
0	23.10	33.84	5.04	483	0	23.10	33.84	5.04	23.04	483	0.00
10	23.04	33.85	5.07	481	10	23.04	33.85	5.07	23.06	481	0.05
29	22.51	33.78	5.06	471	20	22.58	33.79	5.06	23.16	472	0.10
43	19.76	33.89	5.74	392	30	22.49	33.78	5.06	23.17	471	0.14
53	18.34	33.83	5.94	362	50	18.74	33.85	5.91	24.23	370	0.23
62	17.72	33.80	5.92	350	75	17.27	33.79	5.82	24.54	341	0.32
71	17.38	33.77	5.87	344	100	15.54	33.78	5.65	24.94	303	0.40
89	16.58	33.79	5.75	325	150	11.04	33.69	4.27	25.76	224	0.53
103	15.14	33.77	5.56	295	200	9.66	34.08	2.38	26.32	172	0.63
116	13.70	33.66	5.06	274	250	8.88	34.22	1.85	26.55	150	0.71
137	11.63	33.62	4.61	239	300	8.69	34.34	0.90	26.67	138	0.79
163	10.52	33.79	3.69	208	400	7.57	34.39	0.47	26.88	118	0.92
197	9.67	34.07	2.42	173	500	6.66	34.42	0.36	27.03	104	1.04
245	8.92	34.22	1.89	150							
320	8.59	34.43	0.69	130							
418	7.34	34.38	0.44	116							
545	6.36	34.45	0.30	98							
127.80	BLACK DOUGLAS; October 16, 1958; 0746 GCT; 25°23.5'N, 117°02.5'W; sounding, 2000+ fm; wind, 310°, force 3; weather, clear; sea, moderate; wire angle, 04°.										
0	22.82	33.89	5.12	472	0	22.82	33.89	5.12	23.16	472	0.00
9	22.80	33.92	5.06	469	10	22.80	33.92	5.06	23.19	469	0.05
28	22.73	33.93	5.08	466	20	22.77	33.92	5.07	23.20	468	0.09
43	21.62	34.08	5.46	426	30	22.70	33.93	5.09	23.23	466	0.14
52	20.30	34.09	5.53	391	50	21.14	34.09	5.49	23.78	413	0.23
61	19.30	34.02	5.75	372	75	18.39	34.00	5.61	24.43	351	0.32
70	18.74	34.03	5.65	357	100	16.50	33.86	5.47	24.78	318	0.41
89	17.45	33.91	5.58	336	150	12.00	33.74	4.00	25.64	236	0.55
103	16.22	33.86	5.40	312	200	9.97	33.82	3.42	26.06	196	0.66
116	14.44	33.75	4.98	282	250	9.47	34.22	1.83	26.45	159	0.75
139	12.42	33.66	4.26	250	300	8.68	34.29	1.31	26.63	142	0.83
166	11.12	33.80	3.50	217	400	7.56	34.34	0.64	26.84	122	0.96
201	9.94	33.82	3.42	196	500	6.73	34.39	0.37	27.00	107	1.09
249	9.48	34.22	1.85	159							
326	8.36	34.31	1.12	135							
420	7.38	34.35	0.57	118							
551	6.34	34.42	0.31	100							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10 cm/g	ΔD dyn. m

BLACK DOUGLAS; October 17, 1958; 1630 GCT; 26°29'N, 113°29'W; sounding, 40 fm; wind, 060°, force 4; weather, clear; sea, rough; wire angle, 00°. 130.30

0	25.98	34.56a)	4.69	513	0	25.98	34.56	4.69	22.73	513	0.00
10	25.76	34.52	4.82	509	10	25.76	34.52	4.82	22.77	509	0.05
29	24.06	34.35	5.25	473	20	25.52	34.49	4.92	22.81	505	0.10
49	19.49	34.04	5.12	374	30	23.89	34.33	5.26	23.19	469	0.15

BLACK DOUGLAS; October 17, 1958; 1327 GCT; 26°21'N, 113°48.5'W; sounding, 200 fm; wind, 100°, force 4; weather, clear; sea, moderate; wire angle, 00°. 130.35

0	26.05	34.47a)	4.70	522	0	26.05	34.47	4.70	22.64	522	0.00
9	26.06	34.43	4.66	525	10	26.05	34.43	4.65	22.60	525	0.05
28	25.84	34.47	4.70	516	20	25.96	34.45	4.67	22.66	520	0.10
47	20.64	34.03	5.73	404	30	25.67	34.46	4.72	22.75	511	0.16
70	17.03	34.05	5.63	316	50	19.76	34.00	5.73	24.08	384	0.25
93	15.78	33.80	3.94	306	75	16.92	34.06	5.39	24.83	313	0.33
115	13.96	33.96	3.19	257	100	15.00	33.83	3.68	25.09	288	0.41
151	13.70	34.46	1.50	216	150	13.70	34.45	1.52	25.84	216	0.54
187	11.66	34.38	1.23	184	200	11.37	34.39	1.21	26.26	177	0.64
233	10.92	34.52	0.70	160							

BLACK DOUGLAS; October 17, 1958; 1038 GCT; 26°14'N, 114°03'W; sounding, 1150 fm; wind, 060°, force 1; weather, clear; sea, moderate; wire angle, 00°. 13040

0	26.00	34.46	4.63	521	0	26.00	34.46	4.63	22.65	521	0.00
10	25.79	34.42	4.68	518	10	25.79	34.42	4.68	22.68	518	0.05
29	24.47	34.21	4.77	494	20	25.29	34.34	4.70	22.77	509	0.10
44	21.93	33.89	5.37	448	30	24.40	34.20	4.78	22.94	493	0.15
53	18.41	33.64	5.80	377	50	19.40	33.69	5.72	23.94	398	0.24
63	16.39	33.64	5.80	332	75	15.89	33.93	4.40	24.98	299	0.33
72	15.90	33.92	4.46	300	100	13.88	34.04	2.77	25.49	250	0.40
90	13.85	33.96	3.12	256	150	11.26	34.02	2.04	25.98	203	0.51
104	13.43	34.02	2.72	243	200	10.73	34.47	1.04	26.44	160	0.60
117	12.32	33.96	2.64	227	250	9.86	34.43	0.85	26.56	149	0.68
140	11.41	33.98	2.33	209	300	9.42	34.50	0.51	26.68	138	0.76
166	11.07	34.18	1.62	188	400	8.00	34.45	0.37	26.86	120	0.89
200	10.73	34.47	1.04	160	500	6.93	34.43	0.32	27.00	106	1.01
249	9.87	34.43	0.86	150							
324	9.20	34.52	0.38	132							
420	7.73	34.44	0.37	116							
553	6.42	34.43	0.29	100							

BLACK DOUGLAS; October 17, 1958; 0329 GCT; 25°49'N, 114°46'W; sounding, 2000+ fm; wind, 320°, force 2; weather, clear; sea, rough; wire angle, 03°. 130.50

0	25.62	34.51b)	4.66	506	0	25.62	34.51	4.66	22.80	506	0.00
10	25.38	34.53	4.59	498	10	25.38	34.53	4.59	22.89	498	0.05
29	25.17	34.45	4.66	497	20	25.26	34.49	4.63	22.89	498	0.10
43	18.82	33.78b)	6.00	377	30	25.13	34.44	4.68	22.91	496	0.15
53	16.38	33.71	5.76	326	50	17.00	33.72	5.91	24.55	340	0.23
62	15.70	33.84	4.79	302	75	14.92	33.93	3.83	25.19	279	0.31
72	15.16	33.93	3.98	284	100	12.68	33.90	3.10	25.63	237	0.38
91	13.18	33.89	3.28	247							
105	12.46	33.91	3.00	233							

a) Salinity bottle numbers were not recorded on the data sheet. Since standard handling and titrating procedures were used, these salinity values are assumed to be in correct order.

b) Salinity bottle number recorded on the data sheet differs from number on titration sheet. Since standard handling and titrating procedures were used, this salinity value is assumed to be listed correctly.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10^{-5} cm/g	ΔD dyn. m

130.60 BLACK DOUGLAS; October 16, 1958; 2016 GCT; 25°26.5'N, 115°24'W; sounding, 2000+ fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 08°.

0	24.16	34.16	4.70	489	0	24.16	34.16	4.70	22.98	489	0.00
10	24.02	34.16	4.86	486	10	24.02	34.16	4.86	23.01	486	0.05
29	22.74	33.91	4.81	468	20	23.50	34.06	4.83	23.10	478	0.10
43	19.33	33.79	5.56	388	30	22.70	33.90	4.81	23.22	466	0.14
53	18.53	33.84	5.76	366	50	18.73	33.83	5.73	24.21	372	0.23
61	17.80	33.84	5.46	349	75	16.72	33.77	5.42	24.66	329	0.32
70	17.04	33.79	5.43	335	100	14.72	33.69	5.14	25.04	293	0.40
89	15.80	33.72	5.32	313	150	11.00	33.81	3.30	25.87	214	0.52
102	14.40	33.68	5.04	287	200	10.90	34.41	1.13	26.36	168	0.62
115	12.94	33.68	3.99	258	250	10.26	34.43	0.68	26.48	156	0.70
137	11.58	33.73	3.69	230	300	9.40	34.49	0.67	26.67	138	0.78
162	11.66	34.11	1.83	204	400	8.38	34.56	0.41	26.89	118	0.91
196	11.01	34.42	1.16	169	500	7.23	34.51	0.38	27.02	105	1.03
245	10.30	34.42	0.70	157							
319	9.03	34.51	0.65	130							
413	8.22	34.56	0.36	114							
543	6.66	34.47	0.42	100							

133.25 BLACK DOUGLAS; October 18, 1958; 0003 GCT; 26°04.5'N, 112°48'W; sounding, 44 fm; wind, 290°, force 3; weather, clear; sea, rough; wire angle, 00°.

0	26.60	34.42	4.65	542	0	26.60	34.42	4.65	22.43	542	0.00
9	26.00	34.45	4.70	522	10	25.95	34.45	4.71	22.66	520	0.05
28	25.12	34.38	4.81	501	20	25.50	34.42	4.76	22.76	510	0.10
47	20.72	34.14	5.17	398	30	24.55	34.34	4.87	23.00	487	0.15

133.30 BLACK DOUGLAS; October 18, 1958; 0300 GCT; 25°54.5'N, 113°07.5'W; sounding, 110 fm; wind, 310°, force 2; weather, clear; sea, rough; wire angle, 00°.

0	26.42	34.36	4.66	541	0	26.42	34.36	4.66	22.44	541	0.00
9	25.41	34.36	4.78	511	10	25.32	34.36	4.79	22.79	508	0.05
28	23.93	34.32	4.87	471	20	24.57	34.34	4.86	22.99	488	0.10
47	20.32	34.23	4.69	381	30	23.68	34.31	4.87	23.23	465	0.15
71	16.22	33.89	4.62	310	50	19.76	34.15	4.70	24.20	373	0.23
95	14.77	33.93	3.89	276	75	16.21	33.92	4.50	24.89	307	0.32
119	15.27	34.37	2.05	254	100	14.77	33.96	3.87	25.24	274	0.39
147	14.94	34.63	0.95	228	150	(14.87)	(34.65)	(0.90)	(25.75)	(225)	(0.52)

133.40 BLACK DOUGLAS; October 17, 1958; 0923 GCT; 25°34.5'N, 113°45.5'W; sounding, 1400 fm; wind, calm; weather, clear; sea, slight; wire angle, 00°.

0	26.08	34.31	4.61	534	0	26.08	34.31	4.61	22.51	534	0.00
10	25.38	34.23	4.71	519	10	25.38	34.23	4.71	22.67	519	0.05
29	23.84	34.11	4.77	484	20	25.04	34.21	4.72	22.74	512	0.10
44	20.42	33.73	5.57	421	30	23.60	34.08	4.78	23.08	479	0.15
53	18.76	33.68	5.81	383	50	19.30	33.69	5.77	23.96	396	0.24
62	17.68	33.72	5.73	355	75	15.84	33.68	5.60	24.79	317	0.33
72	16.36	33.68	5.62	328	100	13.78	33.76	4.83	25.29	269	0.41
90	14.42	33.70	5.56	286	150	13.00	34.36	1.20	25.91	210	0.53
104	13.52	33.78	3.94	262	200	11.22	34.45	0.86	26.33	171	0.62
118	12.52	33.83	2.98	240	250	10.51	34.50	0.62	26.50	154	0.71
141	11.74	33.94	2.62	217	300	9.75	34.50	0.49	26.63	142	0.78
166	12.19	34.44	1.00	188	400	8.48	34.47	0.33	26.81	125	0.92
203	11.14	34.45	0.87	169	500	7.23	34.45	0.27	26.97	109	1.05
253	10.48	34.51	0.59	154							
330	9.28	34.49	0.45	136							
426	8.17	34.46	0.30	121							
559	6.44	34.44	0.26	100							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T_3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

133.50

BLACK DOUGLAS; October 18, 1958; 1551, 1619 GCT; 25°14.5'N, 114°24'W; sounding, 2000 fm; wind, calm; weather, cloudy; sea, slight; wire angle, 00°, 00°.

0	25.20	34.18	4.62	518	0	25.20	34.18	4.62	22.68	518	0.00
9	25.02	34.18	4.61	513	10	25.00	34.18	4.60	22.74	512	0.05
28	24.61	34.21	4.60	498	20	24.82	34.20	4.60	22.81	506	0.10
42	19.50	33.70	5.46	399	30	24.54	34.21	4.60	22.90	497	0.15
52	17.18	33.69	5.61	345	50	17.40	33.69	5.60	24.44	350	0.24
61	16.22	33.69	5.48	324	75	14.57	33.66	4.83	25.05	292	0.32
70	15.29	33.69	5.14	304	100	13.18	33.69	4.07	25.36	262	0.39
89	14.13	33.72	4.18	278	150	11.20	34.10	1.65	26.06	196	0.51
103	12.91	33.68	4.05	258	200	10.65	34.46	1.06	26.44	160	0.60
116	12.18	33.68	3.82	244	250	10.09	34.52	0.56	26.58	147	0.68
139	11.83	34.00	2.32	214	300	9.60	34.54	0.37	26.68	137	0.75
166	11.13	34.29	1.37	180	400	8.31	34.51	0.28	26.86	120	0.88
202	10.60	34.47	1.05	158	500	7.08	34.45	0.24	27.00	107	1.00
251	10.07	34.52	0.55	146							
329	9.26	34.54	0.33	132							
427	7.95	34.49	0.27	116							
562	6.52	34.43	0.20	101							

133.60

BLACK DOUGLAS; October 18, 1958; 2223 GCT; 24°56'N, 114°59'W; sounding, 2000+ fm; wind, 300°, force 2; weather, partly cloudy; sea, moderate; wire angle, 00°.

0	25.40	34.06	4.68	532	0	25.40	34.06	4.68	22.53	532	0.00
10	24.05	33.97	4.95	500	10	24.05	33.97	4.95	22.86	500	0.05
29	23.16	33.90	4.98	480	20	23.28	33.91	4.98	23.04	483	0.10
44	21.02	33.87	5.28	425	30	22.97	33.89	4.99	23.13	475	0.15
53	19.02	33.84	5.54	378	50	19.80	33.86	5.47	23.97	395	0.24
62	17.34	33.80	5.56	341	75	15.86	33.79	5.16	24.87	309	0.32
71	16.08	33.79	5.19	314	100	14.40	33.81	4.23	25.20	278	0.40
90	15.44	33.82	4.80	298	150	11.31	34.11	2.10	26.05	197	0.52
104	13.96	33.80	4.02	269	200	10.64	34.40	1.01	26.39	165	0.61
117	12.60	33.78	3.35	245	250	10.60	34.61	0.38	26.56	148	0.69
139	11.50	33.96	2.52	212	300	9.80	34.57	0.37	26.67	138	0.76
165	10.88	34.22	1.64	182	400	8.20	34.47	0.28	26.85	121	0.90
200	10.64	34.40	1.01	165	500	7.06	34.46	0.17	27.01	106	1.02
250	10.60	34.61	0.38	148							
326	9.39	34.54	0.37	134							
420	7.88	34.46	0.26	117							
555	6.60	34.47	0.13	99							

137.23

BLACK DOUGLAS; October 20, 1958; 0238 GCT; 25°34'N, 112°18.5'W; sounding, 40 fm; wind, 280°, force 2; weather, partly cloudy; sea, moderate; wire angle, 00°.

0	26.96	34.61	4.64	539	0	26.96	34.61	4.64	22.46	539	0.00
10	26.96	34.61	4.71	539	10	26.96	34.61	4.71	22.46	539	0.05
29	25.41	34.72	4.72	485	20	26.48	34.70	4.72	22.68	518	0.11
48	24.68	34.76	4.67	461	30	25.38	34.72	4.72	23.04	484	0.16

137.30

BLACK DOUGLAS; October 19, 1958; 2306 GCT; 25°20.5'N, 112°45.5'W; sounding, 200 fm; wind, 290°, force 3; weather, partly cloudy; sea, slight; wire angle, 00°.

0	26.33	34.33	4.71	540	0	26.33	34.33	4.71	22.45	540	0.00
9	26.08	34.34	4.65	532	10	26.07	34.34	4.65	22.53	532	0.05
28	24.52	34.36	4.82	485	20	25.43	34.35	4.84	22.74	512	0.11
47	18.56	33.94	5.29	359	30	24.00	34.33	4.90	23.15	473	0.16
71	16.81	33.88	5.26	324	50	18.43	33.96	5.30	24.39	355	0.24
95	15.82	34.02	3.85	292	75	16.52	33.88	5.23	24.79	317	0.32
119	15.31	34.33	2.24	258	100	15.67	34.07	3.69	25.12	285	0.40
157	14.94	34.74	0.80	220	150	15.18	34.70	1.04	25.73	227	0.53
195	13.28	34.74	0.40	187	200	13.12	34.74	0.37	26.19	184	0.63
242	11.96	34.70	0.25	165	250	11.80	34.69	0.23	26.41	163	0.72
290	11.28	34.65	0.19	157	300	(11.18)	(34.64)	(0.19)	(26.48)	(156)	(0.80)

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

137.35 BLACK DOUGLAS; October 19, 1958; 1935 GCT; 25°13'N, 113°04'W; sounding, 600 fm; wind, 180°, force 3; weather, partly cloudy; sea, slight; wire angle, 07°.

0	26.39	34.45	4.56	533	0	26.39	34.45	4.56	22.52	533	0.00
10	26.33	34.47	4.64	530	10	26.33	34.47	4.64	22.55	530	0.05
29	26.06	34.61	4.52	512	20	26.20	34.55	4.59	22.66	520	0.11
44	22.84	34.22	5.20	448	30	26.05	34.61	4.52	22.74	512	0.16
53	21.35	34.25	5.42	406	50	21.78	34.24	5.37	23.72	418	0.25
62	20.20	34.22	5.50	379	75	18.31	34.22	5.17	24.62	333	0.34
71	18.92	34.22	5.54	348	100	15.68	34.14	3.19	25.17	280	0.42
90	16.90	34.20	3.80	302	150	12.58	34.23	2.03	25.90	211	0.54
104	15.16	34.11	2.98	271	200	10.63	34.32	1.32	26.32	171	0.64
117	14.27	34.29	2.12	240	250	10.22	34.52	0.67	26.56	149	0.72
140	13.16	34.23	2.05	222	300	9.60	34.52	0.46	26.67	139	0.80
166	12.48	34.42	1.22	196	400	8.23	34.49	0.33	26.86	120	0.93
201	10.58	34.31	1.32	170	500	6.96	34.47	0.32	27.03	104	1.05
250	10.22	34.52	0.67	149							
327	9.24	34.52	0.42	133							
423	7.92	34.48	0.30	116							
557	6.28	34.47	0.36	95							

137.40 BLACK DOUGLAS; October 19, 1958; 1617, 1643 GCT; 25°03'N, 113°22'W; sounding, 1400 fm; wind, 300°, force 3; weather, rain; sea, moderate; wire angle, 00°, 00°.

0	26.28	34.58	4.56	521	0	26.28	34.58	4.56	22.65	521	0.00
9	26.30	34.57	4.63	522	10	26.29	34.57	4.62	22.64	522	0.05
28	26.06	34.58	4.25	514	20	26.18	34.58	4.47	22.68	518	0.10
43	25.24	34.56	4.72	491	30	26.02	34.58	4.26	22.73	513	0.16
52	23.02	34.33	5.37	445	50	23.60	34.39	5.24	23.32	457	0.25
61	20.88	34.33	5.39	389	75	18.80	34.27	4.85	24.54	341	0.35
71	19.33	34.28	5.12	353	100	15.20	34.01	3.25	25.19	279	0.43
89	16.54	34.13	3.66	299	150	11.87	34.12	1.90	25.96	206	0.55
103	14.90	33.99	3.14	274	200	11.16	34.48	0.81	26.36	167	0.65
117	13.66	34.00	2.59	249	250	10.52	34.59	0.41	26.56	148	0.73
139	12.27	34.04	1.92	220	300	9.90	34.56	0.45	26.65	140	0.81
166	11.99	34.41	1.23	187	400	8.23	34.45	0.37	26.84	122	0.94
201	11.14	34.49	0.80	166	500	7.02	34.43	0.27	26.98	108	1.06
250	10.52	34.59	0.41	148							
329	9.50	34.54	0.46	136							
427	7.74	34.43	0.30	117							
563	6.50	34.43	0.26	101							

137.50 BLACK DOUGLAS; October 19, 1958; 0953 GCT; 24°40'N, 114°01.5'W; sounding, 2000 fm; wind, calm; weather, rain; sea, smooth; wire angle, 00°.

0	25.98	34.32	4.71	531	0	25.98	34.32	4.71	22.55	531	0.00
10	25.92	34.31	4.69	529	10	25.92	34.31	4.69	22.56	529	0.05
29	24.55	34.04a)	4.82	509	20	24.87	34.10	4.79	22.72	514	0.11
44	19.71	33.80	5.67	397	30	24.50	34.03	4.85	22.79	507	0.16
53	18.69	33.80	5.80	373	50	19.02	33.80	5.77	24.12	381	0.24
62	17.35	33.73	5.77	346	75	16.75	33.84	5.46	24.70	325	0.33
71	16.97	33.84	5.60	329	100	13.80	33.74	4.36	25.28	270	0.41
90	14.80	33.76	5.03	289	150	11.32	34.02	2.64	25.97	205	0.53
104	13.38	33.73	4.08	263	200	11.23	34.56	0.54	26.41	163	0.62
117	12.34	33.68	3.84	247	250	10.57	34.61	0.30	26.58	147	0.70
139	11.37	33.89	2.93	215	300	9.82	34.59	0.31	26.68	137	0.78
166	10.98	34.10	2.21	192	400	8.56	34.53	0.30	26.84	122	0.91
201	11.24	34.56	0.52	163	500	7.52	34.52	0.23	26.99	108	1.03
250	10.57	34.61	0.30	147							
327	9.40	34.58	0.32	131							
424	8.27	34.52	0.29	119							
560	6.92	34.52	0.18	100							

a) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

137.60

BLACK DOUGLAS; October 19, 1958; 0350 GCT; 24°20'N, 114°39'W; sounding, 2000+ fm; wind, 300°, force 1; weather, partly cloudy; sea, moderate; wire angle, 00°.

0	24.70	33.97	4.85	518	0	24.70	33.97	4.85	22.67	518	0.00
9	23.71	33.91	5.01	495	10	23.63	33.91	5.03	22.95	492	0.05
28	23.04	33.93	5.11	475	20	23.23	33.92	5.08	23.07	481	0.10
43	20.68	33.86	5.41	417	30	22.97	33.93	5.12	23.15	473	0.15
52	18.44	33.69	5.78	375	50	18.94	33.73	5.69	24.08	384	0.23
61	16.76	33.65	5.93	339	75	16.53	33.91	5.60	24.82	314	0.32
71	16.65	33.92	5.76	317	100	12.23	33.77	3.70	25.60	239	0.39
89	13.94	33.77	4.30	271	150	11.47	34.27	1.42	26.14	188	0.50
103	12.03	33.78	3.54	234	200	10.88	34.49	0.76	26.42	162	0.59
117	11.98	33.92	2.87	223	250	9.96	34.50	0.58	26.59	146	0.67
139	11.53	34.22	1.61	193	300	9.31	34.50	0.40	26.69	136	0.74
165	11.28	34.36	1.13	178	400	8.18	34.48	0.25	26.86	120	0.87
201	10.86	34.49	0.75	162	500	7.24	34.49	0.20	27.00	106	0.99
249	9.98	34.50	0.59	146							
326	9.00	34.50	0.32	131							
423	7.90	34.47	0.24	117							
557	6.84	34.52	0.15	99							

140.30

BLACK DOUGLAS; October 20, 1958; 0857 GCT; 24°45.5'N, 112°24'W; sounding, 60 fm; wind, 240°, force 2; weather, partly cloudy; sea, moderate; wire angle, 00°.

0	27.42	34.86	4.36	535	0	27.42	34.86	4.36	22.50	535	0.00
9	27.40	34.91	4.50	531	10	27.39	34.91	4.50	22.54	531	0.05
28	26.40	34.83	4.46	506	20	26.68	34.85	4.47	22.73	513	0.11
47	24.38	34.70	4.85	456	30	26.37	34.83	4.47	22.81	505	0.16
71	21.62	34.61	4.10	388	50	24.28	34.70	4.84	23.35	454	0.25

140.35

BLACK DOUGLAS; October 20, 1958; 1159 GCT; 24°36'N, 112°43'W; sounding, 500+ fm; wind, calm; weather, partly cloudy; sea, slight; wire angle, 00°.

0	26.52	34.60	4.56	526	0	26.52	34.60	4.56	22.59	526	0.00
10	26.51	34.58	4.47	527	10	26.51	34.58	4.47	22.58	527	0.05
29	25.69	34.52	4.73	508	20	25.93	34.54	4.65	22.73	513	0.10
43	23.07	34.22	5.19	454	30	25.64	34.51	4.75	22.80	506	0.16
53	22.05	34.16	5.32	431	50	22.47	34.18	5.28	23.48	442	0.25
62	20.93	34.30	4.68	392	75	19.77	34.59	4.43	24.53	342	0.35
72	20.34	34.61	3.54	354	100	16.52	34.59	1.62	25.34	265	0.43
90	17.38	34.53	2.07	289	150	14.92	34.85	0.72	25.89	212	0.54
104	16.30	34.61	1.40	259	200	11.79	34.57	0.70	26.32	171	0.64
117	15.98	34.75	0.92	241	250	11.34	34.68	0.38	26.48	156	0.73
140	14.98	34.79	0.72	217	300	10.57	34.66	0.15	26.61	144	0.80
166	12.60	34.52	1.00	190	400	8.58	34.52	0.25	26.83	123	0.94
202	11.78	34.59	0.68	170	500	7.21	34.46	0.24	26.99	108	1.06
253	11.32	34.69	0.24	155							
331	9.88	34.61	0.15	136							
428	8.01	34.49	0.27	117							
564	6.64	34.45	0.19	101							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
140.40	BLACK DOUGLAS; October 20, 1958; 1505 GCT; 24°25.5'N, 113°02'W; sounding, 2000+ fm; wind, 250°, force 1; weather, partly cloudy; sea, moderate; wire angle, 05°.										
0	27.06	34.76	4.63	531	0	27.06	34.76	4.63	22.54	531	0.00
10	27.06	34.76	4.70	531	10	27.06	34.76	4.70	22.54	531	0.05
29	27.02	34.78	4.68	528	20	27.05	34.77	4.70	22.56	530	0.11
43	26.90	34.78	4.70	525	30	27.01	34.78	4.68	22.57	528	0.16
140.50	BLACK DOUGLAS; October 20, 1958; 2041, 2058 GCT; 24°05.5'N, 113°39.5'W; sounding, 2000 fm; wind, 270°, force 2; weather, partly cloudy; sea, moderate; wire angle, 00°, 00°.										
0	27.06	34.57	4.52	545	0	27.06	34.57	4.52	22.40	545	0.00
10	26.80	-	4.65		10	26.80	34.58	4.65	22.48	537	0.05
28	26.12	34.58	4.71	516	20	26.17	34.58	4.70	22.68	517	0.11
44	23.00	34.34	5.36	444	30	26.09	34.58	4.72	22.72	514	0.16
53	20.82	34.12	5.50	402	50	21.00	34.13	5.50	23.85	406	0.25
62	19.42	34.19	5.49	362	75	17.22	34.09	4.67	24.79	317	0.34
72	17.70	34.12	4.85	326	100	14.60	34.13	2.35	25.40	258	0.41
90	15.36	33.98	3.40	284	150	12.63	34.50	0.73	26.10	192	0.53
104	14.35	34.19	2.03	248	200	11.60	34.64	0.26	26.40	164	0.62
					250	10.63	34.65	0.31	26.57	148	0.70
118	13.60	34.30	1.57	225	300	10.03	34.62	0.27	26.67	138	0.77
140	12.86	34.43	0.96	202	400	8.86	34.60	0.23	26.85	121	0.91
166	12.38	34.59	0.42	181	500	7.74	34.57	0.22	27.00	107	1.03
199	11.62	34.64	0.26	164							
248	10.78	34.65	0.31	148							
323	9.71	34.61	0.23	134							
419	8.67	34.60	0.22	118							
554	7.04	34.54	0.18	100							
140.60	BLACK DOUGLAS; October 28, 1958; 1320 GCT; 23°37'N, 114°25'W; sounding, 2000 fm; wind, 320°, force 5; weather, cloudy; sea, moderate; wire angle, 18°.										
0	24.20	34.29		481	0	24.20	34.29		23.06	481	0.00
10	24.19	34.29		481	10	24.19	34.29		23.06	481	0.05
29	24.20	34.31		480	20	24.20	34.30		23.07	480	0.10
42	23.29	34.27		457	30	24.20	34.31		23.08	480	0.14
51	20.13	33.89		401	50	20.31	33.91		23.87	404	0.23
60	18.76	-			75	17.00	33.78		24.60	335	0.32
69	17.82	-			100	13.70	33.86		25.38	260	0.40
86	15.50	33.76		304	150	11.78	34.34		26.14	189	0.51
99	13.86	33.85		264	200	10.64	34.47		26.45	159	0.60
112	13.25	34.04		238	250	10.32	34.58		26.58	146	0.68
131	12.32	34.16		211	300	9.55	34.56		26.70	135	0.75
155	11.61	34.36		184	400	8.59	34.54		26.85	121	0.89
187	11.20	34.51		166	500	7.52	34.52		26.99	108	1.01
233	10.58	34.58		150							
304	9.49	34.56		134							
396	8.63	34.54		122							
524	7.24	34.52		104							
143.26	BLACK DOUGLAS; October 22, 1958; 0340 GCT; 24°19'N, 111°48'W; sounding, 37 fm; wind, 300°, force 2; weather, partly cloudy; sea, moderate; wire angle, 00°.										
0	27.77	34.88	4.34	544	0	27.77	34.88	4.34	22.40	544	0.00
9	27.76	34.90	4.05	542	10	27.76	34.90	4.05	22.42	542	0.05
28	27.50	34.88	4.37	536	20	27.75	34.90	4.06	22.42	542	0.11
48	26.76	34.79	4.62	520	30	27.48	34.88	4.39	22.49	536	0.16

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

143.30

BLACK DOUGLAS; October 21, 1958; 1451 GCT; 24°11'N, 112°03'W; sounding, 110 fm; wind, 360°, force 3; weather, partly cloudy; sea, moderate; wire angle, 00°.

0	27.78	34.79	4.83	552	0	27.78	34.79	4.83	22.33	552	0.00
9	27.76	34.79	4.54	551	10	27.76	34.79	4.54	22.34	551	0.06
28	27.67	34.78	4.54	548	20	27.71	34.78	4.54	22.36	549	0.11
47	26.84	34.86	4.51	517	30	27.66	34.78	4.54	22.37	548	0.16
85a)	19.81b)	34.58	4.28								
108a)	18.09	34.58	2.96								
129a)	16.50	34.62	1.47								

143.35

BLACK DOUGLAS; October 21, 1958; 1151 GCT; 24°01'N, 112°22'W; sounding, 750 fm; wind, 320°, force 1; weather, clear; sea, smooth; wire angle, 00°.

0	27.78	34.78	4.54	552	0	27.78	34.78	4.54	22.32	552	0.00
10	27.79	34.78	4.53	552	10	27.79	34.78	4.53	22.32	552	0.06
29	27.54	34.81	4.61	542	20	27.73	34.79	4.56	22.34	550	0.11
44	26.05	34.65	5.10	509	30	27.50	34.81	4.63	22.44	541	0.16
53	22.50	34.64	5.30	409	50	24.63	34.65	5.22	23.20	468	0.27
62	21.16	34.60	4.78	376	75	19.78	34.53	4.88	24.48	346	0.37
72	20.12	34.55	4.08	353	100	17.58	34.55	2.30	25.06	291	0.45
91	18.15	34.46	3.02	312	150	14.30	34.75	0.65	25.95	206	0.57
105	17.20	34.63	1.50	277	200	12.57	34.75	0.40	26.30	173	0.67
119	16.00	34.69	1.16	246	250	11.59	34.72	0.25	26.47	157	0.75
141	14.73	34.76	0.69	214	300	10.46	34.62	0.35	26.60	145	0.83
167	13.16	34.71	0.60	187	400	8.93	34.57	0.26	26.81	125	0.97
203	12.65	34.78	0.32	172							
253	11.52	34.72	0.24	156							
330	9.79	34.56	0.42	139							
427	8.69	34.57	0.18	121							

143.40

BLACK DOUGLAS; October 21, 1958; 0835 GCT; 23°51'N, 112°40.5'W; sounding, 1600 fm; wind, 320°, force 1; weather, clear; sea, smooth; wire angle, 05°.

0	27.04	34.58	5.15	544	0	27.04	34.58	5.15	22.41	544	0.00
10	26.91	34.67	4.57	533	10	26.91	34.67	4.57	22.52	533	0.05
29	25.94	34.45	4.65	520	20	26.18	34.49	4.62	22.61	524	0.11
43	23.44	34.52	5.14	443	30	25.93	34.45	4.66	22.66	520	0.16
53	21.96	34.49	5.02	405	50	22.49	34.51	5.08	23.72	418	0.25
62	19.76	34.21	5.07	369	75	16.20	33.96	4.80	24.92	304	0.34
72	18.04	34.09	5.08	336	100	16.51	34.45	2.40	25.24	274	0.42
90	16.86	34.23	3.47	299	150	12.96	34.38	1.24	25.94	207	0.54
103	16.08	34.46	2.09	265	200	11.29	34.49	0.84	26.34	169	0.63
117	15.02	34.44	1.80	244	250	10.04	34.45	0.80	26.54	151	0.72
139	13.34	34.31	1.40	220	300	9.53	34.50	0.48	26.66	139	0.79
165	12.24	34.48	0.89	187	400	8.40	34.50	0.27	26.84	122	0.92
200	11.29	34.49	0.84	169	500	7.28	34.56	0.27	27.05	102	1.04
249	10.05	34.45	0.82	151							
325	9.35	34.52	0.38	135							
422	8.12	34.49	0.27	118							
558	6.68	34.67	0.28	86							

a) Pretrip; depth too uncertain for interpolation.
b) Alternate value, 20.07°C.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
143.50	BLACK DOUGLAS; October 21, 1958; 0223 GCT; 23°31'N, 113°18'W; sounding, 1750 fm; wind, 260°, force 1; weather, partly cloudy; sea, slight; wire angle, 03°.										
0	28.10	34.84	4.72	558	0	28.10	34.84	4.72	22.26	558	0.00
9	28.09	34.87	4.72	555	10	28.09	34.87	4.72	22.29	555	0.06
28	27.88	34.88	4.47	548	20	28.03	34.88	4.60	22.32	553	0.11
42	24.00	34.49	5.02	461	30	27.87	34.88	4.47	22.37	548	0.17
51	21.20	34.33	5.21	397	50	21.40	34.34	5.20	23.90	401	0.26
61	19.33	34.18	5.20	361	75	17.99	34.23	4.47	24.70	325	0.35
70	18.38	34.20	4.85	336	100	15.70	34.46	1.90	25.41	258	0.43
89	16.74	34.34	2.61	288	150	13.60	34.67	0.65	26.04	198	0.54
102	15.56	34.47	1.79	253	200	11.62	34.60	0.50	26.38	166	0.64
116	14.78	34.47	1.07	237	250	11.30	34.70	0.14	26.51	154	0.72
138	14.00	34.65	0.63	208	300	10.66	34.70	0.29	26.62	143	0.80
164	13.06	34.70	0.68	186	400	8.85	34.55	0.24	26.81	125	0.93
199	11.64	34.60	0.50	167	500	7.39	34.47	0.18	26.97	109	1.06
248	11.32	34.70	0.13	154							
326	10.22	34.69	0.38	136							
422	8.43	34.52	0.21	121							
556	6.70	34.45	0.17	102							
143.60	BLACK DOUGLAS; October 28, 1958; 0117 GCT; 23°07.5'N, 113°55.5'W; sounding, 2000+ fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 13°.										
0	26.38	34.65		518	0	26.38	34.65		22.68	518	0.00
10	26.38	34.66		518	10	26.38	34.66		22.68	518	0.05
29	26.40	34.67		518	20	26.39	34.66		22.68	518	0.10
42	26.12	34.72		506	30	26.41	34.67		22.68	518	0.16
51	21.80	34.30		415	50	22.23	34.33		23.66	424	0.25
61	20.06	34.47		358	75	17.00	34.27		24.98	299	0.34
69	18.42	34.40		323	100	14.20	34.20		25.55	245	0.41
87	14.71	34.07		264	150	12.00	34.46		26.19	184	0.52
100	14.20	34.20		245	200	11.56	34.66		26.43	161	0.60
113	13.19	34.25		221	250	10.72	34.65		26.58	147	0.68
134	12.48	34.40		197	300	9.90	34.62		26.69	136	0.76
158	11.92	34.53		177	400	8.56	34.56		26.87	119	0.89
191	11.67	34.66		163	500	7.30	34.51		27.01	106	1.01
238	10.92	34.66		150							
312	9.69	34.61		133							
406	8.46	34.56		118							
539	6.76	34.48		101							
147.20	BLACK DOUGLAS; October 22, 1958; 0930 GCT; 23°56'N, 111°03.5'W; sounding, 140 fm; wind, 340°, force 2; weather, clear; sea, smooth; wire angle, 00°.										
0	28.04	34.70	4.35	566	0	28.04	34.70	4.35	22.18	566	0.00
9	28.04	34.70	4.51	566	10	28.04	34.70	4.33	22.18	566	0.06
28	28.06	34.67	4.38	569	20	28.05	34.69	4.45	22.16	568	0.11
47	24.98	34.75	4.63	470	30	28.04	34.67	4.39	22.15	569	0.17
147.25	BLACK DOUGLAS; October 22, 1958; 1220 GCT; 23°46.5'N, 111°22.5'W; sounding, 180 fm; wind, 360°, force 3; weather, clear; sea, smooth; wire angle, 05°.										
0	28.00	34.78	4.56	559	0	28.00	34.78	4.56	22.25	559	0.00
9	28.00	34.78	4.43	559	10	28.00	34.78	4.43	22.25	559	0.06
28	26.97	34.87	4.59	520	20	27.95	34.79	4.42	22.27	557	0.11
47	22.84	34.67	4.68	416	30	26.89	34.87	4.60	22.68	518	0.17
71	20.42	34.51	3.49	364	50	22.66	34.66	4.66	23.79	412	0.26
					75	(20.00)	(34.49)		(24.39)	(355)	(0.35)

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

147.30

BLACK DOUGLAS; October 22, 1958; 1548 GCT; 23°36'N, 111°41.5'W; sounding, 280 fm; wind, 280°, force 2; weather, partly cloudy; sea, rough; wire angle, 00°.

0	27.67	34.89	4.58	541	0	27.67	34.89	4.58	22.43	541	0.00
10	27.66	34.88	4.56	541	10	27.66	34.88	4.56	22.43	541	0.05
29	27.60	34.88	4.46	539	20	27.66	34.88	4.55	22.43	541	0.11
48	25.74	34.74	4.74	493	30	27.60	34.88	4.46	22.46	539	0.16
72	20.92	34.61	3.97	369	50	25.18	34.72	4.66	23.10	478	0.26
95	17.60	34.61	2.02	288	75	20.02	34.58	3.76	24.45	349	0.37
117	14.59	34.38	1.40	240	100	16.93	34.56	1.79	25.21	276	0.45
153	13.74	34.79	0.44	192	150	13.86	34.78	0.46	26.07	195	0.56
187	12.38	34.74	0.27	170	200	12.14	34.75	0.22	26.39	164	0.66
231	11.82	34.76	0.16	158	250	11.39	34.74	0.15	26.52	152	0.74
275	10.60	34.69	0.15	142							

147.40

BLACK DOUGLAS; October 22, 1958; 2142 GCT; 23°16'N, 112°19'W; sounding, 1600 fm; wind, direction missing, force 1; weather, cloudy; sea, rough; wire angle, 03°.

0	28.66	34.72	4.36	584	0	28.66	34.72	4.36	21.99	584	0.00
11	28.20	34.69	4.27	572	10	28.21	34.69	4.26	22.11	572	0.06
30	28.11	34.69	4.34	569	20	28.16	34.69	4.29	22.12	571	0.11
44	27.74	34.76	4.64	552	30	28.11	34.69	4.34	22.15	569	0.17
54	23.58	34.52	4.75	447	50	27.06	34.72	4.67	22.52	533	0.28
63	21.81	34.54	3.68	397	75	19.67	34.47	3.75	24.47	347	0.39
73	19.96	34.49	3.75	353	100	16.60	34.30	3.30	25.10	288	0.47
91	17.46	34.29	3.72	308	150	13.81	34.69	0.74	26.01	201	0.60
105	15.84	34.31	2.52	271	200	12.48	34.78	0.25	26.34	170	0.69
118	15.24	34.48	1.06	245	250	11.49	34.71	0.14	26.48	156	0.77
140	14.26	34.67	0.90	211	300	10.44	34.63	0.18	26.61	144	0.85
167	13.08	34.71	0.38	185	400	8.90	34.59	0.15	26.83	123	0.99
202	12.46	34.78	0.25	169	500	7.56	34.54	0.15	27.00	107	1.11
251	11.46	34.71	0.14	156							
331	9.80	34.60	0.22	136							
426	8.60	34.58	0.15	119							
561	6.60	34.51	0.18	96							

147.50

BLACK DOUGLAS; October 23, 1958; 0330 GCT; 22°56'N, 112°56.5'W; sounding, 2000 fm; wind, 320°, force 3; weather, partly cloudy; sea, rough; wire angle, 00°.

0	27.95	34.79	4.49	557	0	27.95	34.79	4.49	22.27	557	0.00
9	27.94	34.83	4.57	553	10	27.94	34.83	4.57	22.31	553	0.06
28	27.61	34.88	4.57	540	20	27.80	34.86	4.57	22.38	547	0.11
43	25.28	34.40	4.90	504	30	27.54	34.87	4.57	22.46	538	0.16
52	22.66	34.27	5.39	440	50	23.16	34.29	5.28	23.38	451	0.26
62	20.42	34.23	5.50	384	75	18.52	34.20	4.91	24.54	340	0.36
71	19.17	34.26	4.91	350	100	15.82	34.32	2.65	25.28	270	0.44
90	15.94	33.91	4.96	302	150	13.06	34.63	0.30	26.12	190	0.56
103	15.60	34.38	2.03	260	200	11.94	34.72	0.14	26.41	163	0.64
117	14.02	34.34	1.65	231	250	11.09	34.72	0.10	26.56	148	0.73
139	13.48	34.60	0.46	201	300	10.41	34.70	0.09	26.67	138	0.80
165	12.49	34.67	0.26	177	400	8.90	34.60	0.10	26.84	122	0.94
200	11.94	34.72	0.14	163	500	7.55	34.55	0.15	27.01	106	1.06
248	11.13	34.72	0.10	149							
325	10.07	34.69	0.09	134							
421	8.60	34.58	0.10	119							
556	6.91	34.54	0.20	98							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_3	Z	T	S	O_2	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

147.60 BLACK DOUGLAS; October 23, 1958; 0957 GCT; 22°36'N, 113°34'W; sounding, 2000+ fm; wind, 320°, force 2; weather, partly cloudy; sea, moderate; wire angle, 08°.

0	27.19	34.85	4.61	529	0	27.19	34.85	4.61	22.56	529	0.00
9	27.19	34.83	4.72	530	10	27.17	34.83	4.72	22.54	531	0.05
29	27.00	34.75	4.71	530	20	27.08	34.78	4.71	22.54	531	0.11
43	25.82	34.81	4.95	490	30	27.00	34.76	4.71	22.55	530	0.16
53	20.10	34.52	4.72	355	50	22.29	34.62	4.86	23.87	404	0.25
62	18.43	34.47	3.54	318	75	16.80	34.51	2.02	25.20	277	0.34
71	17.28	34.53	2.17	286	100	14.88	34.52	1.21	25.65	235	0.40
89	15.42	34.43	1.80	253	150	11.94	34.47	0.82	26.21	182	0.51
103	14.74	34.54	1.13	231	200	11.08	34.63	0.47	26.49	155	0.59
116	13.78	34.56	1.03	210	250	10.16	34.60	0.44	26.63	142	0.67
138	12.25	34.45	0.85	189	300	9.50	34.57	0.35	26.72	133	0.74
164	11.66	34.52	0.81	173	400	8.09	34.49	0.25	26.88	118	0.87
198	11.13	34.63	0.49	156	500	7.02	34.50	0.25	27.04	103	0.99
247	10.20	34.60	0.45	142							
322	9.21	34.56	0.32	130							
418	7.81	34.48	0.24	115							
552	6.66	34.52	0.27	97							

150.19 BLACK DOUGLAS; October 24, 1958; 2011 GCT; 23°23.5'N, 110°38'W; sounding, 110 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 10°.

0	27.88	34.78	4.59	556	0	27.88	34.78	4.59	22.28	556	0.00
10	27.88	34.79	4.74	555	10	27.88	34.79	4.74	22.29	555	0.06
29	27.64	34.83	4.64	544	20	27.88	34.80	4.74	22.30	554	0.11
47	24.87	34.71	4.85	470	30	27.53	34.83	4.66	22.44	540	0.17
70	20.36	34.65	3.60	352	50	24.28	34.70	4.80	23.35	454	0.27
93	17.38	34.57	2.62	286	75	19.62	34.63	3.35	24.60	335	0.36
116	15.73	34.60	1.63	247	100	16.87	34.58	2.35	25.24	274	0.44
143	14.36	34.65	0.83	215	150	(14.00)	(34.65)	(0.83)	(25.94)	(208)	(0.56)

150.25 BLACK DOUGLAS; October 24, 1958; 1507 GCT; 23°11.5'N, 111°05'W; sounding, 620 fm; wind, 340°, force 4; weather, partly cloudy; sea, rough; wire angle, 15°.

0	28.09	34.69	4.78	568	0	28.09	34.69	4.78	22.16	568	0.00
9	28.14	34.73	4.50	567	10	28.14	34.73	4.50	22.16	567	0.06
28	28.08	34.70	4.57	568	20	28.10	34.71	4.54	22.16	567	0.11
41	26.86	34.71	4.73	529	30	28.07	34.70	4.57	22.17	567	0.17
50	24.20	34.70	5.07	451	50	24.20	34.70	5.07	23.38	451	0.27
60	23.08	34.77	4.60	416	75	21.18	34.73	3.57	24.26	368	0.37
69	21.98	34.72	4.09	389	100	18.41	34.77	1.71	25.02	295	0.46
87	19.37	34.79	2.30	317	150	13.80	34.54	0.92	25.89	212	0.59
100	18.41	34.77	1.71	295	200	11.82	34.62	0.43	26.35	168	0.68
113	17.36	34.73	1.36	274	250	11.25	34.69	0.27	26.52	153	0.77
136	14.54	34.52	1.19	228	300	10.73	34.71	0.16	26.62	143	0.85
161	12.81	34.43	0.90	201	400	8.99	34.60	0.20	26.83	123	0.98
195	11.87	34.60	0.44	171	500	7.45	34.57	0.20	27.04	103	1.11
243	11.38	34.69	0.30	156							
318	10.55	34.71	0.15	140							
414	8.71	34.59	0.20	120							
547	6.80	34.56	0.19	95							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

150.30

BLACK DOUGLAS; October 24, 1958; 1110 GCT; 23°04'N, 111°23'W; sounding, 1500 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 23°.

0	27.98	34.81	4.64	556	0	27.98	34.81	4.64	22.28	556	0.00
11	28.00	34.84	4.71	555	10	28.00	34.83	4.70	22.29	555	0.06
29	27.93	34.82	4.70	554	20	27.98	34.83	4.71	22.30	554	0.11
43	26.24	34.59	5.04	520	30	27.92	34.82	4.70	22.31	554	0.17
52	21.92	34.18	5.62	427	50	23.00	34.26	5.54	23.40	449	0.27
61	21.99	34.60	5.24	398	75	20.36	34.60	4.34	24.39	355	0.37
70	21.14	34.69	4.47	369	100	16.60	34.30	3.18	25.10	288	0.45
87	18.11	34.36	4.02	318	150	14.96	34.71	0.55	25.77	223	0.58
99	16.68	34.31	3.19	290	200	13.08	34.81	0.21	26.25	178	0.68
112	16.08	34.40	2.37	270	250	12.00	34.90	0.19	26.52	152	0.76
132	15.21	34.60	1.07	236	300	11.14	34.80	0.15	26.62	143	0.84
155	14.88	34.73	0.42	220	400	9.13	34.63	0.10	26.83	123	0.98
186	13.50	34.76	0.21	190	500	7.27	34.57	0.10	27.07	100	1.10
232	12.33	34.92	0.19	156							
305	11.02	34.79	0.14	142							
396	9.20	34.63	0.10	124							
526	6.76	34.56	0.11	94							

150.40

BLACK DOUGLAS; October 24, 1958; 0452 GCT; 22°43.5'N, 111°59'W; sounding, 1750 fm; wind, 320°, force 3; weather, clear; sea, rough; wire angle, 02°.

0	28.18	34.69	4.48	571	0	28.18	34.69	4.48	22.12	571	0.00
10	–	34.71	4.65		10	28.18	34.71	4.65	22.14	569	0.06
29	28.06	34.87	4.58	555	20	28.17	34.74	4.62	22.17	567	0.11
44	27.33	34.76	4.71	540	30	28.05	34.87	4.59	22.31	554	0.17
53	24.52	34.58	5.22	469	50	26.47	34.69	4.87	22.68	518	0.28
62	22.79	34.53	5.24	425	75	19.10	34.48	3.97	24.62	333	0.38
72	20.09	34.49	4.38	357	100	16.78	34.59	1.52	25.27	271	0.46
91	17.75	34.56	2.22	295	150	12.59	34.51	0.70	26.11	191	0.58
105	16.08	34.60	1.19	255	200	12.32	34.76	0.20	26.36	167	0.67
118	15.05	34.53	0.97	238	250	11.32	34.76	0.12	26.55	150	0.75
141	13.08	34.52	0.74	199	300	10.48	34.69	0.12	26.65	140	0.83
167	12.69	34.69	0.39	180	400	8.78	34.59	0.19	26.85	121	0.96
202	12.26	34.76	0.19	166	500	7.47	34.57	0.19	27.04	103	1.08
252	11.28	34.76	0.11	149							
329	10.00	34.64	0.13	136							
426	8.29	34.58	0.20	114							
560	6.82	34.57	0.14	95							

150.50

BLACK DOUGLAS; October 23, 1958; 2144 GCT; 22°22'N, 112°35'W; sounding, 2000 fm; wind, 340°, force 3; weather, partly cloudy; sea, very rough; wire angle, 05°.

0	28.18	34.67	4.51	572	0	28.18	34.67	4.51	22.11	572	0.00
11	28.14	34.70	4.69	569	10	28.15	34.70	4.68	22.14	570	0.06
30	27.84	34.81	4.63	552	20	28.13	34.72	4.70	22.17	567	0.11
45	25.32	34.60	4.97	491	30	27.84	34.81	4.63	22.32	552	0.17
54	22.94	34.54	4.84	428	50	24.10	34.56	4.92	23.30	459	0.27
63	19.92	34.54	4.19	349	75	18.88	34.59	2.82	24.76	320	0.37
73	19.08	34.60	2.87	324	100	15.42	34.26	2.28	25.33	266	0.44
91	16.46	34.33	2.52	283	150	13.59	34.68	0.36	26.05	197	0.56
105	14.84	34.22	2.10	257	200	12.23	34.76	0.13	26.38	166	0.65
118	13.79	34.21	1.94	236	250	11.27	34.72	0.07	26.53	152	0.74
140	13.46	34.58	0.48	202	300	10.48	34.64	0.12	26.62	143	0.81
167	12.89	34.69	0.33	183	400	8.90	34.60	0.18	26.85	121	0.95
201	12.22	34.76	0.12	166	500	7.60	34.56	0.20	27.01	106	1.07
250	11.27	34.72	0.07	152							
326	10.04	34.61	0.14	139							
422	8.58	34.60	0.20	117							
557	6.97	34.53	0.18	100							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10^{-5} cm/g	ΔD dyn. m

150.60 BLACK DOUGLAS; October 23, 1958; 1551 GCT; 22°02'N, 113°13'W; sounding, 1900 fm; wind, 320°, force 1; weather, partly cloudy; sea, moderate; wire angle, 06°.

0	26.74	34.63	4.66	531	0	26.74	34.63	4.66	22.54	531	0.00
10	26.70	34.63	4.71	530	10	26.70	34.63	4.71	22.55	530	0.05
29	26.54	34.69	4.72	520	20	26.63	34.66	4.72	22.60	525	0.11
43	26.22	34.65	4.71	514	30	26.53	34.69	4.72	22.66	520	0.16
53	21.88	34.14	5.54	428	50	25.76	34.59	4.80	22.82	505	0.26
62	20.53	34.05	5.62	400	75	19.34	34.18	5.10	24.32	361	0.37
71	19.38	34.09	5.49	368	100	15.10	33.88	4.70	25.10	287	0.45
90	16.69	34.03	4.74	310	150	12.00	34.20	2.25	25.99	203	0.58
103	15.16	33 93	4.28	284	200	10.93	34.46	0.93	26.39	165	0.67
116	14.96	34.25	2.33	256	250	10.22	34.57	0.51	26.59	145	0.75
138	12.36	34.09	2.26	217	300	9.82	34.64	0.26	26.72	134	0.82
164	11.36	34.24	1.71	188	400	8.52	34.59	0.22	26.90	117	0.95
199	10.94	34.46	0.94	165	500	7.28	34.56	0.26	27.05	102	1.07
247	10.25	34.56	0.53	146							
323	9.63	34.65	0.20	130							
419	8.23	34.58	0.23	114							
553	6.66	34.55	0.27	94							

153.16 BLACK DOUGLAS; October 25, 1958; 1310 GCT; 22°55'N, 110°07'W; sounding, 220 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 28°.

0	27.90	34.77	4.52	557	0	27.90	34.77	4.52	22.27	557	0.00
8	27.92	34.79	4.61	556	10	27.92	34.78	4.61	22.28	556	0.06
25	27.91	34.76	4.69	558	20	27.91	34.77	4.66	22.27	557	0.11
41	27.52	34.81	4.64	542	30	27.90	34.76	4.69	22.27	557	0.17
63	25.30	34.81	4.35	475	50	26.37	34.81	4.51	22.80	506	0.27
83	19.42	34.56	2.81	335	75	20.42	34.57	3.09	24.34	359	0.38
104	16.24	34.55	1.76	262	100	16.81	34.55	1.94	25.23	275	0.46
137	13.82	34.56	0.89	211	150	13.06	34.57	0.78	26.07	195	0.58
170	12.64	34.63	0.46	183	200	12.08	34.69	0.24	26.35	168	0.67
212	11.88	34.70	0.19	164	250	11.07	34.70	0.14	26.55	150	0.76
254	11.00	34.70	0.14	148							

153.20 BLACK DOUGLAS; October 25, 1958; 1609 GCT; 22°47.5'N, 110°22'W; sounding, 340 fm; wind, 320°, force 6; weather, partly cloudy; sea, rough; wire angle, 13°.

0	27.82	34.72	4.69	558	0	27.82	34.72	4.69	22.26	558	0.00
10	27.84	34.75	4.60	557	10	27.84	34.75	4.60	22.27	557	0.06
29	27.82	34.78	4.77	554	20	27.83	34.77	4.63	22.30	554	0.11
43	25.74	34.65	5.14	500	30	27.82	34.78	4.78	22.31	553	0.17
52	23.14	34.61	4.89	428	50	23.60	34.62	4.99	23.49	441	0.27
61	21.80	34.61	4.03	392	75	19.37	34.63	2.66	24.67	328	0.36
70	20.04	34.63	3.06	346	100	16.60	34.58	1.40	25.30	268	0.44
89	17.84	34.64	1.91	292	150	13.36	34.76	0.44	26.16	186	0.55
102	16.30	34.56	1.32	262	200	12.20	34.83	0.21	26.44	160	0.64
115	15.29	34.63	0.99	236	250	11.37	34.82	0.16	26.59	146	0.72
137	13.69	34.69	0.60	199	300	10.61	34.73	0.14	26.66	139	0.79
164	13.01	34.81	0.27	177	400	9.17	34.63	0.15	26.83	123	0.93
199	12.22	34.83	0.24	160	500	7.52	34.56	0.14	27.02	105	1.05
247	11.41	34.83	0.16	146							
323	10.26	34.69	0.14	136							
418	8.88	34.62	0.15	120							
550	6.60	34.52	0.14	96							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m

153.30

BLACK DOUGLAS; October 25, 1958; 2252 GCT; 22°30'N, 111°02'W; sounding, 1700 fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 12°.

0	27.54	34.86	4.90	539	0	27.54	34.86	4.90	22.46	539	0.00
10	27.54	34.81	4.60	543	10	27.54	34.81	4.60	22.42	543	0.05
29	27.54	34.85	4.60	539	20	27.54	34.83	4.60	22.44	541	0.11
43	27.04	34.77	4.60	530	30	27.54	34.85	4.60	22.46	539	0.16
52	23.00	34.32	5.60	445	50	23.31	34.35	5.55	23.37	452	0.26
61	20.90	34.18	5.60	400	75	19.20	34.12	5.28	24.31	362	0.36
70	19.61	34.07	5.47	375	100	17.37	34.56	2.10	25.11	286	0.45
89	18.28	34.37	3.57	322	150	13.62	34.69	0.49	26.05	197	0.57
103	17.12	34.59	1.81	279	200	11.96	34.65	0.35	26.34	169	0.66
116	16.10	34.63	1.30	253	250	11.28	34.72	0.19	26.53	151	0.74
137	14.43	34.66	0.71	216	300	10.52	34.67	0.19	26.63	142	0.82
163	13.17	34.72	0.39	186	400	8.89	34.61	0.16	26.85	121	0.96
196	12.06	34.65	0.36	171	500	7.60	34.55	0.17	27.00	107	1.08
243	11.39	34.73	0.20	153							
318	10.26	34.66	0.19	139							
412	8.70	34.60	0.16	119							
546	7.04	34.52	0.18	102							

153.40

BLACK DOUGLAS; October 26, 1958; 0535 GCT; 22°08'N, 111°37'W; sounding, 1600 fm; wind, 310°, force 5; weather, partly cloudy; sea, very rough; wire angle, 11°.

0	27.18	34.74	4.71	536	0	27.18	34.74	4.71	22.49	536	0.00
11	27.20	34.74	4.66	537	10	27.20	34.74	4.67	22.48	537	0.05
30	27.18	34.75	4.59	536	20	27.19	34.75	4.60	22.49	536	0.11
44	25.02	34.49	5.03	490	30	27.18	34.75	4.59	22.49	536	0.16
53	21.54	34.26	5.28	411	50	22.45	34.30	5.18	23.58	432	0.26
62	19.64	34.20	5.53	367	75	17.53	34.06	5.30	24.68	327	0.35
71	18.47	34.09	5.30	346	100	16.40	34.46	1.91	25.26	272	0.43
92	17.30	34.40	2.71	296	150	13.57	34.72	0.42	26.08	194	0.55
103	15.90	34.48	1.63	260	200	12.17	34.76	0.31	26.39	165	0.64
116	15.10	34.53	1.07	239	250	11.28	34.71	0.12	26.52	152	0.72
138	13.99	34.64	0.56	208	300	10.52	34.66	0.14	26.62	143	0.80
163	13.13	34.76	0.35	183	400	8.98	34.58	0.14	26.82	124	0.94
196	12.22	34.76	0.32	166	500	7.62		0.16			
242	11.40	34.72	0.12	154							
316	10.25	34.64	0.14	140							
409	8.82	34.58	0.14	122							
539	7.11	34.80r	0.18								

153.50

BLACK DOUGLAS; October 26, 1958; 1147 GCT; 21°47.5'N, 112°14.5'W; sounding, 2000 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 22°.

0	27.06	34.78	4.71	530	0	27.06	34.78	4.71	22.55	530	0.00
12	27.07	34.76	4.76	532	10	27.07	34.77	4.75	22.54	531	0.05
31	27.04	34.78	4.74	529	20	27.06	34.76	4.74	22.54	531	0.11
44	23.40	34.35	5.50	454	30	27.04	34.78	4.74	22.56	529	0.16
53	21.32	34.20	5.69	409	50	21.94	34.24	5.66	23.68	423	0.25
62	19.41	34.08	5.72	370	75	17.18	34.06		24.76	319	0.35
71	17.66	34.07	-	329	100	14.08	34.03		25.44	255	0.42
89	15.47	33.99	-	286	150	12.09	34.51		26.22	181	0.53
103	13.76	34.04	-	248	200	11.58	34.65		26.42	162	0.62
115	13.22	34.11	-	232	250	11.08	34.70		26.55	150	0.70
137	12.35	34.42	-	193	300	10.52	34.66		26.62	143	0.78
162	11.87	34.56	-	174	400	8.90	34.61		26.85	121	0.91
196	11.62	34.65	-	163	500	7.61	34.57		27.02	105	1.03
244	11.14	34.70	-	151							
319	10.30	34.65	-	140							
414	8.68	34.60	-	119							
546	7.08	34.56	-	99							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
153.60	BLACK DOUGLAS; October 26, 1958; 1815 GCT; 21°28'N, 112°53'W; sounding, 2000+ fm; wind, 330°, force 3; weather, partly cloudy; sea, high; wire angle, 14°.										
0	26.23	34.52	4.65a)	524	0	26.23	34.52	4.65	22.62	524	0.00
10	26.21	34.58	4.65	519	10	26.21	34.58	4.65	22.67	519	0.05
29	26.20	34.54	4.68	521	20	26.20	34.56	4.66	22.66	520	0.10
43	25.75	34.50	4.78	511	30	26.20	34.54	4.68	22.65	521	0.16
52	23.32	34.29	5.30	457	50	23.94	34.34	5.17	23.18	470	0.26
61	20.88	34.16	5.66	401	75	18.87	34.10	5.43	24.38	355	0.36
70	20.30	34.17	5.56	385	100	15.71	34.02	4.22	25.08	289	0.44
88	17.69	34.15	4.97	324	150	12.70	34.45	0.88	26.05	197	0.56
101	15.40	34.00	4.10	284	200	11.80	34.69	0.25	26.41	163	0.65
114	13.53	33.91	3.79	253	250	10.89	34.65	0.28	26.54	150	0.74
135	13.13	34.27	1.60	219	300	10.18	34.65	0.24	26.67	138	0.81
159	12.49	34.56	0.56	186	400	8.87	34.60	0.19	26.85	121	0.95
191	11.96	34.70	0.26	165	500	7.51	34.57	0.16	27.03	104	1.06
236	11.08	34.65	0.29	153							
307	10.07	34.65	0.24	136							
399	8.88	34.60	0.19	122							
528	7.09	34.56	0.16	99							
153.70	BLACK DOUGLAS; October 26, 1958; 2338 GCT; 21°07'N, 113°28'W; sounding, 2000+ fm; wind, 330°, force 4; weather, partly cloudy; sea, rough; wire angle, 10°.										
0	26.24	34.56	4.70a)	522	0	26.24	34.56	4.70	22.64	522	0.00
11	26.22	34.54	4.70	522	10	26.22	34.54	4.70	22.64	522	0.05
30	26.22	34.59	4.71	518	20	26.22	34.57	4.71	22.66	520	0.10
44	23.92	34.49	4.98	459	30	26.22	34.59	4.71	22.67	518	0.16
53	23.29	34.45	5.05	445	50	23.53	34.46	5.02	23.40	449	0.25
62	22.16	34.36	5.22	420	75	20.00	34.21	5.43	24.18	375	0.36
71	20.38	34.23	5.43	383	100	17.80	34.13	4.97	24.67	328	0.45
89	18.87	34.16	5.42	351	150	13.42	34.34	0.97	25.82	220	0.58
102	17.62	34.12	4.90	324	200	12.07	34.70	0.24	26.36	168	0.68
115	15.48	33.98	4.15	287	250	11.21	34.74	0.09	26.55	149	0.76
137	13.42	34.13	0.97	235	300	10.40	34.67	0.11	26.65	140	0.84
162	12.43	34.45	1.01	192	400	8.93	34.58	0.16	26.82	124	0.98
195	12.10	34.67	0.27	170	500	7.63	34.56	0.15	27.00	106	1.10
242	11.40	34.75	0.08	152							
316	10.16	34.65	0.12	138							
410	8.78	34.57	0.16	122							
542	7.14	34.56	0.13	100							
153.80	BLACK DOUGLAS; October 27, 1958; 0504 GCT; 20°47'N, 114°05'W; sounding, 2000+ fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 10°.										
0	27.24	34.23	4.61a)	575	0	27.24	34.23	4.61	22.08	575	0.00
10	27.22	34.25	4.57	573	10	27.22	34.25	4.57	22.10	573	0.06
43	26.36	34.56	4.70	524	20	27.22	34.26	4.57	22.11	573	0.11
51	23.00	34.04	5.48	466	30	27.20	34.27	4.57	22.12	571	0.17
61	21.75	33.90	5.52	442	50	23.20	34.07	5.46	23.19	469	0.28
71	20.56	34.04	5.57	401	75	20.00	34.05	5.59	24.05	387	0.38
89	18.00	34.06	5.64	338	100	17.50	34.10	5.00	24.73	323	0.47
102	16.04	34.01	4.30	297	150	11.86	34.07	2.32	25.91	210	0.61
116	15.06	34.13	2.87	268	200	11.32	34.53	0.57	26.37	167	0.70
138	12.63	34.04	2.40	226	250	10.68	34.60	0.32	26.54	150	0.78
162	11.75	34.34	1.09	188	300	9.87	34.56	0.27	26.66	140	0.86
198	11.36	34.53	0.61	167	400	8.48	34.56	0.19	26.88	119	1.00
247	10.72	34.60	0.33	151	500	7.31	34.53	0.13	27.03	104	1.11
323	9.47	34.55	0.24	134							
419	8.21	34.56	0.18	115							
553	6.73	34.51	0.11	98							

a) Nine-day interval between treating the oxygen samples with reagents and titration of samples.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

D-1
(75.66)

HORIZON; October 14-15, 1958; 2349, 0013 GCT; 34°50'N, 122°10'W; sounding, 2105 fm; wind, 340°, force 4; weather, clear; sea, moderate; wire angle, 33°, 42°.

0	17.14	33.35	5.53	369	0	17.14	33.35	5.53	24.24	369	0.00
8	17.13	33.36	5.43	368	10	17.14	33.37	5.43	24.25	368	0.04
22	17.28	33.46	5.47	364	20	17.23	33.41	5.45	24.27	366	0.07
35	13.69	33.04	6.03	320	30	15.75	33.27	5.75	24.50	344	0.11
65	11.82	33.10	5.53	281	50	12.28	33.01	5.28	25.02	295	0.17
85	9.92	33.40	4.55	226	75	10.95	33.25	5.11	25.44	254	0.24
110	9.28	33.49	4.26	210	100	9.51	33.46	4.36	25.85	216	0.30
137	9.04	33.71	3.36	190	150	8.74	33.79	3.50	26.23	180	0.40
159	8.55	33.84	3.59	172	200	8.02	34.01	2.43	26.52	152	0.49
178	8.56	33.96	2.39	164	250	7.29	34.05	2.19	26.65	140	0.56
209	7.83	34.02	2.44	150	300	6.79	34.08	1.89	26.74	131	0.63
					400	6.26		0.99			
234	7.53	34.04	2.22	144	500	6.05		0.50			
269	7.04	34.05	2.17	137	600	5.43		0.30			
316	6.66	34.09	1.48	128	700	4.97		0.30			
354	6.65	34.20	1.02	120	800	4.52		0.31			
401	6.23	-	0.98		1000	(3.93)					
445	5.92	-	0.81								
509a)	6.08	-	0.45								
598	5.44	-	0.31								
694	4.99	-	0.30								
794	4.53	-	0.31								
916	4.13	-	0.34								
966	4.02	-	0.47								

D-2
(73.65)

HORIZON; October 15, 1958; 0320 GCT; 35°02.5'N, 122°17'W; sounding, 2175 fm; wind, 340°, force 4; weather, clear; sea, moderate; wire angle, 10°.

0	17.24	33.44	5.45	365	0	17.24	33.44	5.45	24.28	365	0.00
10	17.20	33.35	5.50	370	10	17.20	33.35	5.50	24.23	370	0.04
44	12.89	33.06	6.19	303	20	17.17	33.34	5.52	24.23	370	0.07
64	11.20	33.21	5.12	262	30	17.05	33.33	5.58	24.24	369	0.11
78	10.69	33.31	4.95	246	50	12.15	33.11	5.88	25.11	286	0.18
108	9.32	33.54	4.40	206	75	10.80	33.29	5.00	25.50	249	0.24
137	9.13	33.80	3.19	184	100	9.62	33.48	4.52	25.84	217	0.30
176	8.45	33.98	2.46	161	150	9.05	33.91	2.83	26.27	176	0.40
211	7.98	34.04	2.11	149	200	8.10	34.03	2.12	26.52	152	0.48
236	7.51	34.04	2.20	143	250	7.30	34.05	2.14	26.65	140	0.56
286	6.84	34.07	1.86	132	300	6.78	34.08	1.71	26.75	131	0.63
326	6.62	34.08	1.46	129	400	6.35	34.20	0.85	26.90	116	0.76
381	6.50	34.19	1.00	119	500	5.68	34.29	0.58	27.06	101	0.87
441	6.00	34.20	0.64	112	600	5.29	34.35	0.30	27.15	93	0.97
506	5.62	34.30	0.57	100	700	4.84	34.39	0.32	27.23	85	1.07
571	5.37	34.34	0.35	94	800	4.45	34.40	0.33	27.28	80	1.16
626	5.20	34.36	0.28	91	1000	3.77	34.50	0.62	27.44	65	1.32
710	4.80	34.39	0.33	84							
824	4.36	34.42	0.35	77							
943	3.95	34.49	0.47	68							
1043	3.63	34.51	0.72	64							
1187	3.30	34.56	1.00	57							
1237	3.24	34.55	1.01	57							

a) Note similar feature on Station D-3 (72.66).

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T_3}^{-5}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T_3}^{-5}$ 10^{-5} cm/g	ΔD dyn. m

D-3 (72.66)

HORIZON; October 15, 1958; 0700 GCT; 35°16.5'N, 122°29'W; sounding, 1955 fm; wind, 340°, force 4; weather, clear; sea, moderate; wire angle, 25°.

0	17.03	33.42	5.53	362	0	17.03	33.42	5.53	24.32	362	0.00
9	17.05	33.38	5.62	365	10	17.05	33.38	5.62	24.28	365	0.04
37	14.90	33.21	5.92	331	20	17.02	33.37	5.66	24.28	365	0.07
55	12.71	33.44	4.82	271	30	16.90	33.36	5.69	24.30	363	0.11
69	11.27	33.53	4.03	240	50	12.58	33.27	5.23	25.16	282	0.17
92	10.28	33.65	3.64	214	75	10.98	33.56	3.91	25.68	232	0.24
120	9.78	33.84	2.89	191	100	10.09	33.70	3.14	25.94	207	0.29
152	9.37	33.93	2.66	178	150	9.39	33.92	2.68	26.23	179	0.39
180	9.01	34.02	2.37	167	200	8.75	34.07	2.28	26.45	159	0.48
203	8.67	34.07	2.27	158	250	7.80	34.05	2.40	26.58	146	0.56
240	7.84	34.04	2.44	148	300	7.55	34.18	1.39	26.72	134	0.63
286	7.72	34.18	1.39	136	400	6.84	34.25	0.87	26.88	118	0.76
328	7.20	34.16	1.40	130	500	6.02	34.28	0.50	27.00	106	0.87
384	7.04	34.27	0.86	120	600	5.26	34.34	0.28	27.14	93	0.98
430	6.26	34.22	0.98	114	700	4.77	34.40	0.33	27.25	83	1.07
484a,b)	6.2	34.29	0.57	108	800	4.41	34.43	0.37	27.31	77	1.16
535	5.59	34.26	0.43	103	1000	3.75	34.50	0.52	27.44	65	1.32
609	5 22	34.34	0.28	93							
714	4.70	34.40	0.33	82							
814	4.36	34.43	0.38	76							
925	3.98	34.47	0.41	70							
1050	3.61	34.52	0.58	62							
1096	3.48	34.53	0.63	60							

D-4 (71^5.66)

HORIZON; October 15, 1958; 0938 GCT; 35°25'N, 122°36.5'W; sounding, 1915 fm; wind, 340°, force 4; weather, clear; sea, moderate; wire angle, 30°.

0	17.45	33.55	5.50	362	0	17.45	33.55	5.50	24.32	362	0.00
8	17.44	33.50	5.57	365	10	17.44	33.50	5.57	24.28	365	0.04
35	14.14	33.47	5.28	296	20	17.43	33.50	5.57	24.28	365	0.07
52	11.97	33.44	4.61	258	30	16.83	33.48	5.52	24.40	354	0.11
65	11.09	33.56	4.00	234	50	12.18	33.44	4.70	25.36	262	0.17
88	9.75	33.55	4.56	212	75	10.40	33.56	4.27	25.78	222	0.23
113	9.68	33.72	3.21	199	100	9.70	33.63	3.90	25.96	206	0.29
143	9.30	33.89	2.67	180	150	9.19	33.92	2.60	26.27	176	0.38
170	8.92	33.99	2.45	167	200	8.28	34.06	2.05	26.52	153	0.47
191	8.36	33.98	3.08	159	250	8.06	34.12	1.74	26.60	145	0.54
225	8 26	34.10	1.94	149	300	7.78	34.20	1.29	26.70	135	0.62
269	7.94	34.14	1.56	142	400	7.04	34.26	0.76	26.85	121	0.75
308	7.68	34.22	1.20	132	500	6.11	34.30	0.47	27.01	106	0.87
361	7.26	34.24	0.90	125	600	5.31	34.33	0.32	27.13	94	0.97
406	7.00	34.26	0.73	120	700	4 85	34.36	0.27	27.20	87	1.07
459	6.48	34.27	0.57	113	800	4.46	34.42	0.43	27.30	78	1.16
508	6.02	34.30	0.45	105	1000	3.85	34.49	0.58	27.42	67	1.32
581	5.41	34.32	0.33	96							
682	4.92	34.35	0.25	88							
786	4.50	34.42	0.41	78							
891	4.18	34.44	0.48	74							
1017	3.80	34.49	0.61	67							
1067	3.69	34.50	0.57	65							

a) Note similar feature on Station D-1 (75.66).

b) Both protected reversing thermometers at this level malfunctioned; since a satisfactory depth value was obtained, the temperature value was determined by calculation, using the unprotected thermometer reading.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10 cm/g	ΔD dyn. m

D-5
(71.66)

HORIZON; October 15, 1958; 1320 GCT; 35°30'N, 122°40'W; sounding, 1685 fm; wind, 340°, force 4; weather, clear; sea, slight; wire angle, 20°.

0	16.71	33.42	5.47	354	0	16.71	33.42	5.47	24.40	354	0.00
9	16.70	33.39	5.59	356	10	16.70	33.39	5.59	24.37	356	0.04
42	13.28	33.42	5.05	284	20	16.68	33.39	5.59	24.38	356	0.07
61	11.85	33.56	4.15	247	30	15.48	33.40	5.39	24.64	331	0.10
76	10.96	33.51	4.26	235	50	12.48	33.47	4.55	25.34	265	0.16
103	10.02	33.62	3.64	212	75	11.00	33.51	4.24	25.64	236	0.23
131	9.49	33.78	3.14	192	100	10.15	33.60	3.74	25.85	216	0.28
168	9.10	33.96	2.46	172	150	9.25	33.89	2.75	26.22	180	0.38
201	8.82	34.05	2.21	162	200	8.83	34.04	2.22	26.42	162	0.47
224	8.50	34.10	1.96	153	250	8.27	34.14	1.73	26.58	147	0.55
270	8.08	34.16	1.60	142	300	7.80	34.18	1.43	26.68	137	0.62
309	7.71	34.18	1.39	135	400	6.69	34.20	1.00	26.85	121	0.76
360	7.27	34.22	1.09	127	500	6.00	34.26	0.50	26.99	108	0.88
415	6.48	34.19	0.99	119	600	5.36	34.32	0.38	27.12	96	0.98
477	6.08	34.22	0.69	112	700	4.81	34.39	0.29	27.24	84	1.08
536	5.91	34.31	0.39	103	800	4.49	34.46	0.35	27.32	76	1.18
588	5.46	34.31	0.41	98	1000	3.85	34.47	0.50	27.40	69	1.33
667	4.94	34.36	0.29	88							
776	4.56	34.45	0.32	77							
890	4.20	34.47	0.43	72							
986	3.90	34.47	0.48	69							
1128	3.39	34.54	0.68	59							
1178	3.33	34.56	0.68	57							

D-6
(70°5.65)

HORIZON; October 15, 1958; 1614, 1805 GCT; 35°38'N, 122°40.5'W; sounding, 1610 fm; wind, 350°, force 4; weather, partly cloudy; sea, moderate; wire angle, 20°, 15°.

3	16.80	33.37	5.63	360	0	(16.80)	(33.37)	(5.63)	(24.33)	(360)	(0.00)
12	16.81	33.39	5.62	359	10	16.80	33.39	5.62	24.34	360	0.04
31	12.38	33.35	4.79	272	20	16.77	33.39	5.61	24.35	358	0.07
45	11.76	33.42	4.36	256	30	12.45	33.35	4.81	25.24	274	0.10
78	10.12	33.54	3.85	220	50	11.46	33.44	4.25	25.50	249	0.15
105	9.44	33.62	3.58	203	75	10.22	33.53	3.89	25.79	222	0.21
133	9.06	33.75	3.14	187	100	9.58	33.61	3.61	25.96	206	0.27
169	8.94	33.97	2.24	169	150	9.00	33.82	2.89	26.22	181	0.37
203	8.79	34.03	2.06	162	200	8.80	34.03	2.07	26.42	162	0.45
226	8.52	34.05	2.07	156	250	8.39	34.09	1.92	26.52	152	0.53
273	8.22	34.15	1.58	145	300	7.82	34.18	1.37	26.67	138	0.61
310	7.62	34.18	1.29	135	400	6.85	34.22	0.78	26.85	121	0.74
362	7.10	34.22	0.94	124	500	6.12	34.25	0.57	26.97	110	0.86
418	6.76	34.22	0.70	120	600	5.48	34.32	0.36	27.10	97	0.97
479	6.28	34.23	0.62	113	700	4.97	34.37	0.30	27.21	87	1.07
542a)	5.8	34.28	0.44	103	800	4.47	34.42	0.35	27.29	79	1.16
					1000	3.83	34.49	0.54	27.42	67	1.32
695	4.98	34.37	0.30	87							
809	4.44	34.42	0.36	78							
928	4.04	34.49	0.47	69							
1026	3.75	34.49	0.59	66							
1169	3.30	34.51	0.73	60							
1219	3.20	34.54	0.81	57							

a) Both protected reversing thermometers at this level malfunctioned; since a satisfactory depth was obtained, the temperature value was determined by calculation, using the unprotected thermometer reading.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

D-7
(70.65)

HORIZON; October 15, 1958; 2005 GCT; 35°43'N, 122°44'W; sounding, 760 fm; wind, 350°, force 4; weather, partly cloudy; sea, moderate; wire angle, 18°.

0	16.68	33.43	5.65	354	0	16.68	33.43	5.65	24.40	354	0.00
10	16.58	33.37	5.63	355	10	16.58	33.37	5.63	24.39	355	0.04
39	12.27	33.49	4.47	260	20	15.98	33.38	5.50	24.52	342	0.07
58	11.00	33.62	3.81	228	30	14.55	33.42	5.13	24.88	308	0.10
72	10.55	33.64	3.59	218	50	11.40	33.55	4.02	25.59	240	0.16
95	10.00	33.73	3.19	204	75	10.42	33.65	3.52	25.85	216	0.21
125	9.72	33.79	2.90	194	100	9.97	33.74	3.13	26.01	201	0.27
158	9.26	33.87	2.57	182	150	9.39	33.85	2.66	26.18	185	0.37
187	9.02	33.97	2.33	170	200	8.95	34.01	2.22	26.37	166	0.46
211	8.82	34.03	2.12	163	250	8.45	34.04	1.93	26.47	157	0.54
249	8.46	34.03	1.94	158	300	8.10	34.14	1.49	26.61	144	0.62
296	8.18	34.14	1.52	145	400	6.91	34.16	1.01	26.80	126	0.76
339	7.68	34.16	1.18	137	500	6.30	34.25	0.59	26.94	112	0.88
397	6.92	34.16	1.02	126	600	5.55	34.32	0.36	27.09	98	0.99
445	6.72	34.22	0.74	120	700	5.13	34.36	0.30	27.18	90	1.09
502a)	6.3	34.25	0.55	112	800	4.63	34.41	0.28	27.27	81	1.18
556	5.72	34.30	0.39	101	1000	3.93	34.48	0.49	27.40	69	1.35
633	5.43	34.32	0.33	97							
740	4.94	34.39	0.28	86							
847	4.42	34.42	0.30	78							
954	4.06	34.47	0.46	71							
1082	3.71	34.48	0.54	66							
1131	3.61	34.48	0.61	66							

D-8
(69^{5}.65)

HORIZON; October 15, 1958; 2257 GCT; 35°47'N, 122°46'W; sounding, 1810 fm; wind, 340°, force 3; weather, partly cloudy; sea, moderate; wire angle, 18°.

0	16.14	33.41	5.73	343	0	16.14	33.41	5.73	24.52	343	0.00
9	16.06	33.40	5.73	342	10	16.04	33.40	5.73	24.53	342	0.03
38	10.98	33.60	3.61	229	20	15.60	33.41	5.63	24.64	331	0.07
57	10.60	33.62	3.39	221	30	13.85	33.49	4.98	25.06	291	0.10
72	10.30	33.68	3.20	212	50	10.69	33.61	3.46	25.77	224	0.15
95	9.82	33.78	2.96	197	75	10.22	33.69	3.17	25.91	210	0.20
123	9.58	33.87	2.60	186	100	9.79	33.80	2.90	26.07	195	0.26
157	9.35	33.95	2.31	176	150	9.40	33.94	2.37	26.24	178	0.35
185	9.12	33.96	2.15	172	200	8.98	33.99	2.23	26.36	168	0.44
208	8.94	34.02	2.27	165	250	8.86	34.16	1.35	26.50	154	0.52
245	8.89	34.16	1.34	154	300	8.38	34.16	1.62	26.58	146	0.60
291	8.47	34.16	1.63	148	400	7.40	34.22	1.08	26.78	128	0.74
333	7.86	34.16	1.45	140	500	6.22	34.24	0.56	26.94	112	0.86
388	7.56	34.21	1.17	131	600	5.58	34.33	0.37	27.10	97	0.98
432	6.89	34.25	0.88	120	700	5.00	34.36	0.36	27.19	88	1.07
487	6.30	34.23	0.59	114	800	4.68	34.38	0.35	27.24	84	1.17
537	6.04	34.27	0.50	108	1000	3.91	34.50	0.48	27.42	67	1.32
612	5.49	34.33	0.36	96							
716	4.92	34.36	0.36	88							
821	4.62	34.38	0.33	84							
929	4.22	34.45	0.42	74							
1055	3.70	34.52	0.55	63							
1105	3.60	34.51	0.61	63							

a) Both protected reversing thermometers at this level malfunctioned; since a satisfactory depth was obtained, the temperature value was determined by calculation, using the unprotected thermometer reading.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m

D-9
(69.65)

HORIZON; October 16, 1958; 0112 GCT; 35°52'N, 122°50'W; sounding, 1900 fm; wind, 340°, force 4; weather, cloudy; sea, moderate; wire angle, 21°.

0	16.16	33.36	5.84	347	0	16.16	33.36	5.84	24.47	347	0.00
10	16.13	33.38	5.83	345	10	16.13	33.38	5.83	24.49	345	0.03
38	12.02	33.49	4.22	255	20	16.00	33.39	5.80	24.53	341	0.07
56	10.93	33.58	3.62	230	30	12.60	33.41	4.75	25.26	272	0.10
70	10.40	33.61	3.44	218	50	11.62	33.55	3.81	25.55	244	0.15
94	10.04	33.68	3.10	208	75	10.30	33.63	3.35	25.85	216	0.21
120	9.72	33.79	2.78	194	100	9.99	33.70	3.03	25.97	205	0.26
151	9.52	33.88	2.43	184	150	9.53	33.88	2.44	26.18	184	0.36
177	9.36	33.93	2.27	178	200	9.15	33.96	2.12	26.30	173	0.45
200	9.15	33.96	2.12	173	250	8.92	34.18	1.77	26.51	153	0.53
235	8.94	34.08	1.89	161	300	8.78	34.24	1.50	26.58	146	0.61
280	8.84	34.25a)	1.57	147	400	7.59	34.23	1.19	26.75	130	0.75
320	8.65	34.22a)	1.42	146	500	6.55	34.26	0.68	26.92	114	0.88
375	7.78	34.23	1.30	133	600	5.69	34.31	0.35	27.07	100	1.00
420	7.42	34.23	1.07	128	700	5.12	34.34	0.28	27.16	91	1.10
474	6.77	34.25	0.80	118	800	4.62	34.36	0.28	27.23	84	1.19
524	6.36	34.26	0.59	112	1000	3.91	(34.50)	0.45	(27.42)	(67)	(1.36)
599	5.70	34.31	0.35	100							
701	5.10	34.34	0.28	91							
803	4.62	34.36	0.28	84							
907	4.26	34.44	0.38	75							
1031	3.80	34.54u	0.50								
1080	3.67	34.51u	0.58								

D-10
(68^5.65)

HORIZON; October 16, 1958; 0340 GCT; 36°00'N, 122°56'W; sounding, 1870 fm; wind, 340°, force 4; weather, cloudy; sea, moderate; wire angle, 25°.

0	16.12	33.43	5.77	341	0	16.12	33.43	5.77	24.54	341	0.00
9	16.13	33.40	5.78	343	10	16.13	33.40	5.78	24.51	343	0.03
27	12.86	33.40	5.76	278	20	16.01	33.40	5.78	24.54	341	0.07
40	11.32	33.60	5.34	235	30	12.38	33.45	5.66	25.34	265	0.10
73	10.14	33.69	3.16	208	50	10.85	33.64	4.75	25.76	224	0.15
101	9.91	33.75	2.95	200	75	10.07	33.70	3.12	25.94	207	0.20
127	9.76	33.82	2.82	193	100	9.93	33.75	2.96	26.01	201	0.25
163	9.46	33.89	2.45	184	150	9.56	33.87	2.56	26.16	186	0.35
195	9.27	33.96	2.23	175	200	9.25	33.98	2.20	26.30	173	0.44
217	9.13	34.02	2.03	168	250	8.87	34.11	1.82	26.46	158	0.53
263	8.79	34.14	1.75	154	300	8.45	34.17	1.54	26.57	147	0.60
299	8.46	34.17	1.54	147	400	7.54	34.20	1.11	26.73	132	0.75
348	8.03	34.18	1.39	140	500	6.42	34.24	0.71	26.92	114	0.88
403	7.50	34.20	1.09	132	600	5.60	34.30	0.39	27.07	100	0.99
462	6.84	34.23	0.90	120	700	5.04	34.36	0.39	27.19	89	1.09
520b)	6.2	34.25	0.59	111	800	4.58	34.40	0.34	27.27	81	1.18
571b)	5.8	34.29	0.38	103	1000	3.88	34.47	0.45	27.40	69	1.35
648	5.28	34.33	0.39	94							
754	4.78	34.40	0.39	84							
867	4.32	34.40	0.28	78							
962	4.02	34.45	0.39	72							
1102	3.57	34.52	0.62	62							
1150	3.49	34.54	0.64	60							

a) The use of these values results in an unusual density structure, but nevertheless values were accepted in drawing the property curve.

b) Both protected reversing thermometers at this level malfunctioned; since a satisfactory depth was obtained, the temperature value was determined by calculation, using the unprotected thermometer reading.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10 cm/g	ΔD dyn. m

D-11
(68.65)

HORIZON; October 16, 1958; 0703 GCT; 36°09'N, 123°02.5'W; sounding, 1860 fm; wind, 340°, force 3; weather, cloudy; sea, rough; wire angle, 20°.

0	16.70	33.39	5.68	357	0	16.70	33.39	5.68	24.37	357	0.00
9	16.64	33.37	5.71	357	10	16.63	33.37	5.70	24.37	357	0.04
42	11.02	33.58	3.58	231	20	16.00	33.40	5.48	24.54	341	0.07
61	10.46	33.68	3.24	214	30	13.40	33.49	4.46	25.17	281	0.10
75	10.15	33.66	3.24	211	50	10.76	33.62	3.41	25.77	224	0.15
104	9.79	33.77	2.98	197	75	10.15	33.66	3.24	25.90	211	0.21
132	9.50	33.86	2.64	186	100	9.82	33.74	3.01	26.03	199	0.26
170	9.22	33.98	2.14	173	150	9.38	33.92	2.32	26.23	180	0.35
203	9.02	34.07	1.96	163	200	9.03	34.06	1.99	26.40	164	0.44
227	8.81	34.12	1.89	156	250	8.69	34.13	1.75	26.51	153	0.52
275	8.56	34.14	1.59	151	300	8.30	34.17	1.50	26.60	145	0.60
312	8.21	34.18	1.48	143	400	7.30	34.22	1.10	26.78	127	0.74
365	7.70	34.19	1.20	135	500	6.41	34.23	0.63	26.91	115	0.87
421	7.06	34.23	1.05	124	600	5.54	34.31	0.38	27.09	98	0.98
483	6.56	34.23	0.68	116	700	4.98	34.30	0.33	27.15	92	1.08
545a)	6.0	34.25	0.50	108	800	4.64	34.34	0.32	27.22	86	1.18
598	5.54	34.31	0.38	98	1000	3.95	34.50	0.48	27.41	68	1.34
678	5.06	34.30	0.54u	94							
789	4.68	34.34	0.32	87							
905	4.22	34.47	0.35	72							
1001	3.94	34.50	0.48	67							
1144	3.58	34.49	0.55	64							
1195	3.50	34.55	0.66	59							

D-12
(67.65)

HORIZON; October 16, 1958; 1058 GCT; 36°17'N, 123°09'W; sounding, 1890 fm; wind, 340°, force 3; weather, cloudy; sea, moderate; wire angle, 08°.

0	16.45	33.48	5.58	345	0	16.45	33.48	5.58	24.50	345	0.00
10	16.46	33.42	5.48	349	10	16.46	33.42	5.48	24.45	349	0.03
40	13.86	33.48	4.87	290	20	16.43	33.42	5.42	24.46	348	0.07
60	11.29	33.58	3.88	236	30	16.20	33.42	5.28	24.52	343	0.10
75	10.36	33.64	3.75	216	50	12.48	33.53	4.38	25.38	261	0.16
100	9.68	33.75	3.26	196	75	10.36	33.64	3.75	25.85	216	0.22
130	9.33	33.95	2.55	176	100	9.68	33.75	3.26	26.06	196	0.28
165	8.80	34.02	2.24	163	150	9.02	33.99	2.38	26.34	169	0.37
194	8.66	34.16	1.91	151	200	8.69	34.17	1.82	26.54	150	0.45
220	8.82	34.29	1.59	144	250	8.45	34.25	1.61	26.64	141	0.52
259	8.32	34.23	1.63	140	300	7.86	34.24	1.37	26.72	134	0.60
309	7.75	34.24	1.30	132	400	6.84	34.24	0.82	26.86	120	0.72
353	7.42	34.25	1.01	127	500	6.10	34.29	0.51	27.00	107	0.84
412	6.69	34.24	0.78	118	600	5.50	34.34	0.37	27.11	96	0.95
463	6.44	34.31	0.66	109	700	4.98	34.37	0.30	27.20	87	1.05
521	5.94	34.27	0.44	106	800	4.57	34.40	0.30	27.28	80	1.14
577	5.65	34.32	0.38	99	1000	3.95	(34.52)	0.48	(27.43)	(66)	(1.30)
655	5.16	34.36	0.33	90							
764	4.72	34.39	0.28	83							
874	4.28	34.43	0.32	76							
982	4.00	34.51	0.43	67							
1112	3.60	34.56u	0.62								
1162	3.46	34.52u	0.59								

a) Both protected reversing thermometers at this level malfunctioned; since a satisfactory depth was obtained, the temperature was determined by calculation, using the unprotected thermometer reading.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta T_{3,10^{-5}}$ cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta T_{3,10^{-5}}$ cm/g	ΔD dyn. m

D-13
(70.80)

HORIZON; October 16, 1958; 1852 GCT; 35°12'N, 123°47.5'W; sounding, 2150 fm; wind, 340°, force 4; weather, cloudy; sea, rough; wire angle, 27°.

0	16.72	33.43	5.63	354	0	16.72	33.43	5.63	24.40	354	0.00
9	16.72	33.38	5.63	358	10	16.72	33.38	5.63	24.36	358	0.04
40	12.64	33.39	4.98	274	20	16.67	33.38	5.62	24.37	357	0.07
58	10.64	33.41	4.60	238	30	16.50	33.38	5.58	24.41	353	0.11
71	9.94	33.44	4.70	224	50	11.43	33.40	4.75	25.47	252	0.17
97	9.16	33.64	4.38	197	75	9.65	33.46	4.68	25.83	218	0.23
124	8.94	33.85	2.96	178	100	9.13	33.69	4.30	26.09	193	0.28
159	8.38	33.96	2.69	161	150	8.52	33.93	2.74	26.38	166	0.37
190	8.02	34.05	2.14	150	200	7.97	34.06	2.10	26.57	148	0.45
213	7.83	34.08	1.98	145	250	7.15	34.07	1.91	26.69	136	0.52
256	7.04	34.07	1.90	135	300	6.82	34.14	1.35	26.79	127	0.59
290	6.93	34.13	1.46	129	400	6.28	34.21	0.70	26.91	115	0.71
338	6.57	34.16	1.04	122	500	5.75	34.34	0.39	27.08	99	0.83
391	6.34	34.20	0.73	116	600	5.08	34.36	0.35	27.18	90	0.93
448	6.00	34.25	0.56	108	700	4.68	34.41	0.35	27.26	82	1.02
505	5.74	34.34	0.37	98	800	4.28	34.43	0.43	27.33	76	1.10
556	5.36	34.34	0.35	94	1000	3.62	34.49	0.45	27.44	65	1.26
634	4.90	34.38	0.35	86							
741	4.54	34.43	0.38	78							
856	4.06	34.44	0.46	73							
954	3.75	34.49	0.42	66							
1095	3.38	34.50	0.57	62							
1145	3.30	34.54	0.69	58							

D-14
(70.75)

HORIZON; October 16, 1958; 2226, 2250, 2344 GCT; 35°23'N, 123°26.5'W; sounding, 1950 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 10°, 14°, 14°.

0	16.94	33.42	5.44	360	0	16.94	33.42	5.44	24.34	360	0.00
11	16.86	33.37	5.52	362	10	16.86	33.37	5.52	24.32	362	0.04
45	13.00	33.43	4.67	278	20	16.79	33.37	5.52	24.34	360	0.07
					30	16.65	33.37	5.50	24.37	357	0.11
64	11.94	33.49	4.19	254	50	12.63	33.45	4.51	25.28	270	0.17
78	10.82	33.58	3.74	228	75	11.12	33.56	3.86	25.66	234	0.23
108	9.76	33.73	3.32	199	100	9.80	33.69	3.45	25.99	203	0.29
137	9.23	33.91	2.70	178	150	9.10	33.96	2.52	26.31	172	0.38
176	8.86	34.06	2.17	161	200	8.59	34.09	1.98	26.49	155	0.47
					250	8.19	34.18	1.51	26.63	142	0.54
215	8.38	34.10	1.86	151	300	7.67	34.23	1.16	26.74	132	0.61
240	8.24	34.16	1.58	144	400	6.38	34.18	0.97	26.88	118	0.74
289	7.81	34.23	1.21	134	500	5.88	34.30	0.44	27.03	104	0.86
330	7.32	34.22	1.06	128	600	5.26	34.39	0.29	27.18	90	0.96
385	6.43	34.16	1.07	121	700	4.85	34.43	0.26	27.26	82	1.05
444	6.30	34.27	0.60	110	800	4.46	34.45	0.32	27.32	76	1.14
510	5.82	34.30	0.42	102	1000	3.84	34.51	0.50	27.43	66	1.29
573	5.38	34.35	0.32	93							
629	5.14	34.42	0.26	86							
712	4.80	34.43	0.28	81							
826	4.37	34.51u	0.34								
945	3.98	34.45u	0.45								
1044	3.72	34.52	0.57	64							
1188	3.32	34.54	0.74	58							
1239	3.23	34.57	0.81	56							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_3	Z	T	S	O_2	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

D-15
(70.73)

HORIZON; October 17, 1958; 0213, 0225, 0310 GCT; 35°28'N, 123°16.5'W; sounding, 2025 fm; wind, 350°, force 3; weather, cloudy; sea, rough; wire angle, 10°, 10°, missing.

0	16.92	33.46	5.56	356	0	16.92	33.46	5.56	24.38	356	0.00
10	16.90	33.42	5.56	358	10	16.90	33.42	5.56	24.35	358	0.04
39	13.59	33.17	6.00	308	20	16.87	33.41	5.57	24.35	358	0.07
					30	16.65	33.39	5.63	24.38	356	0.11
60	11.09	33.24	5.04	258	50	12.02	33.20	5.46	25.21	277	0.17
75	9.84	33.39	4.54	226	75	9.84	33.39	4.54	25.74	226	0.23
99	9.40	33.68	3.83	198	100	9.39	33.69	3.80	26.06	196	0.29
129	9.09	33.86	3.03	180	150	8.95	33.95	2.59	26.32	171	0.38
163	8.84	34.00	2.26	166	200	8.59	34.08	1.79	26.48	156	0.46
194	8.63	34.06	1.80	158	250	7.46	34.03	2.30	26.62	143	0.54
218	8.36	34.11	1.77	150	300	6.80	34.04	1.90	26.71	134	0.61
258	7.24	34.02	2.42	142	400	6.67	34.28	0.87	26.92	114	0.74
308	6.77	34.04	1.77	134	500	5.85	34.27	0.47	27.02	105	0.85
352	7.09	34.20	1.01	126	600	5.23	34.32	0.41	27.13	94	0.97
413	6.58	34.28	0.82	113	700	4.75	34.37	0.33	27.23	85	1.05
463	6.12	34.25	0.51	110	800	4.38	(34.43)	0.32	(27.32)	(76)	(1.14)
522	5.69	34.29	0.44	102	1000	3.80	(34.50)	0.52	(27.43)	(66)	(1.30)
653	4.95	34.34	0.37	90							
761	4.52	34.40	0.29	80							
870	4.15	34.26r	0.38								
978	3.85	34.30r	0.50								
1107	3.58	34.51a)	0.61	63							
1157	3.44	34.52	0.70	61							

D-16
(70.70)

HORIZON; October 17, 1958; 0522, 0615, 0657 GCT; 35°32.5'N, 123°05'W; sounding, 1980 fm; wind, 310°, force 3; weather, cloudy; sea, rough; wire angle, 24°, 26°, 23°.

0	16.78	33.40a)	5.55	358	0	16.78	33.40	5.55	24.36	358	0.00
10	16.74	33.40	5.37	356	10	16.74	33.40	5.37	24.38	356	0.04
38	13.22	33.35	4.97	288	20	16.62	33.40	5.31	24.40	354	0.07
56	11.53	33.53	3.96	244	30	15.80	33.38	5.19	24.58	337	0.10
69	10.74	33.56	3.73	228	50	11.99	33.47	4.25	25.42	256	0.16
92	10.04	33.68	3.22	208	75	10.49	33.60	3.58	25.79	222	0.22
120	9.63	33.77	2.80	194	100	9.95	33.71	3.12	25.98	203	0.28
153	9.16	33.88a)	2.57	180	150	9.20	33.88	2.61	26.23	180	0.38
181	9.07	34.00	2.20	169	200	8.82	34.04	2.01	26.42	162	0.46
204	8.79	34.05	2.00	161	250	8.10	34.05	2.20	26.54	151	0.54
242	8.18	34.04	2.21	153	300	7.60	34.13	1.77	26.67	138	0.62
287	7.84	34.13	1.79	141	400	6.83	34.19	0.90	26.82	124	0.75
330	7.05	34.11	1.74	132	500	6.03	34.25	0.48	26.98	109	0.87
					600	5.40	34.35	0.35	27.14	94	0.98
391	6.90	34.18	0.96	125	700	4.93	34.40	0.30	27.22	85	1.08
440	6.62	34.23	0.65	118	800	4.46	34.43	0.31	27.30	78	1.16
499	6.03	34.25	0.48	109	1000	3.80	34.48	0.50	27.42	67	1.32
554	5.61	34.33	0.36	98							
636	5.25	34.31u	0.34								
745	4.70	34.42	0.28	81							
852	4.26	34.43	0.33	76							
961	3.91	34.47	0.45	69							
1089	3.54	34.52	0.59	62							
1139	3.40	34.52	0.61	61							

a) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

D-17
(70.67)

HORIZON; October 17, 1958; 0918 GCT; 35°38'N, 122°55'W; sounding, 1965 fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 10°.

0	16.82	33.50	5.48	352	0	16.82	33.50	5.48	24.42	352	0.00
11	16.82	33.46	5.23	354	10	16.82	33.46	5.25	24.40	354	0.04
40	14.55	33.43	5.10	308	20	16.81	33.46	5.21	24.40	354	0.07
60	11.63	33.34	4.41	260	30	16.59	33.45	5.16	24.44	350	0.10
75	10.82	33.58	3.64	228	50	12.80	33.37	4.80	25.20	278	0.17
99	9.92	33.65	3.43	208	75	10.82	33.58	3.64	25.72	228	0.23
128	9.32	33.84	2.90	185	100	9.90	33.65	3.42	25.94	207	0.29
163	9.10	34.00	2.28	170	150	9.18	33.97	2.46	26.30	173	0.38
191	8.90	34.11	2.02	158	200	8.85	34.13	1.96	26.48	156	0.47
217	8.76	34.14	1.77	154	250	8.41	34.14	1.62	26.56	149	0.54
256	8.33	34.14	1.59	148	300	7.82	34.16	1.53	26.67	138	0.62
305	7.76	34.17	1.52	137	400	7.15	34.24	0.85	26.83	123	0.75
350	7.16	34.21	1.35	126	500	6.20	34.31	0.56	27.00	106	0.87
409	7.14	34.30	0.76	119	600	5.55	34.39	0.35	27.15	92	0.98
458	6.38	34.25	0.72	113	700	5.06	34.41	0.29	27.22	86	1.07
519	6.13	34.33	0.49	104	800	4.56	34.46	0.32	27.32	76	1.16
573	5.70	34.39	0.37	94	1000	3.79	34.55	0.52	27.47	62	1.31
652	5.29	34.39	0.29	90							
762	4.72	34.45	0.31	79							
871	4.27	34.47	0.33	73							
980	3.85	34.54	0.50	64							
1110	3.46	34.56	0.56	58							
1160	3.35	34.55	0.61	57							

D-18
(70.66)

HORIZON; October 17, 1958; 1133 GCT; 35°40.5'N, 122°49'W; sounding, 1745 fm; wind, 300°, force 4; weather, cloudy; sea, rough; wire angle, 22°.

0	16.84	33.42	5.28	358	0	16.84	33.42	5.28	24.36	358	0.00
10	16.82	33.44	5.29	356	10	16.82	33.44	5.29	24.38	356	0.04
38	12.49	33.23	4.92	283	20	16.68	33.44	5.28	24.41	353	0.07
56	11.53	33.37	4.42	256	30	14.82	33.32	5.14	24.74	322	0.10
71	11.12	33.48	3.94	240	50	11.82	33.31	4.60	25.34	265	0.16
94	9.64	33.68	3.38	202	75	10.93	33.51	3.82	25.66	234	0.23
121	9.23	33.81	2.78	186	100	9.54	33.70	3.24	26.04	198	0.28
154	8.88	33.93	2.36	171	150	8.93	33.91	2.42	26.30	173	0.38
182	8.72	33.96	2.20	166	200	8.52	34.00	2.08	26.44	160	0.46
204	8.48	34.01	2.04	160	250	8.21	34.09	1.80	26.55	149	0.54
240	8.31	34.08	1.83	151	300	7.72	34.16	1.37	26.68	137	0.61
286	7.82	34.15	1.48	140	400	6.98	34.21	0.82	26.82	124	0.75
327	7.48	34.18	1.14	133	500	6.35	34.26	0.57	26.95	112	0.87
382	7.08	34.20	0.89	126	600	5.61	34.30	0.36	27.07	100	0.98
428	6.78	34.22	0.72	120	700	4.99	34.36	0.27	27.19	88	1.08
482	6.48	34.25	0.61	114	800	4.46	34.43	0.28	27.30	78	1.17
533	6.08	34.27	0.46	108	1000	3.82	34.48	0.45	27.41	68	1.33
606	5.57	34.30	0.34	100							
708	4.94	34.36	0.26	88							
812	4.42	34.43	0.28	78							
919	4.08	34.45	0.40	72							
1046	3.66	34.50	0.48	64							
1097	3.54	34.51	0.59	62							

SIO
CCOFI
5810

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

D-19
(70.65)

HORIZON; October 17, 1958; 1440 GCT; 35°43'N, 122°43.5'W; sounding, 730 fm; wind, 320°, force 3; weather, overcast; sea, rough; wire angle, 19°.

0	16.36	33.37	5.67	350	0	16.36	33.37	5.67	24.44	350	0.00
10	16.36	33.38a)	5.69	350	10	16.36	33.38	5.69	24.44	350	0.04
44	12.43	33.46	4.36	266	20	16.35	33.38	5.68	24.45	349	0.07
63	10.90	33.58	3.29	229	30	16.31	33.38	5.66	24.46	348	0.10
77	10.46	33.64	3.24	218	50	11.85	33.50	3.96	25.47	252	0.16
106	9.98	33.73	2.82	203	75	10.50	33.64	3.25	25.82	218	0.22
136	9.46	33.84	2.67	187	100	10.05	33.72	2.88	25.96	205	0.28
174	9.12	33.94	2.36	174	150	9.32	33.88	2.54	26.21	182	0.38
209	8.72	34.03	1.94	161	200	8.82	34.00	2.07	26.39	165	0.46
233	8.54	34.04	1.76	158	250	8.42	34.07	1.64	26.50	154	0.54
282	8.24	34.20	1.45	142	300	8.02	34.22	1.32	26.68	137	0.62
321	7.75	34.23	1.15	132	400	6.83	34.23	0.88	26.86	120	0.75
375	6.94	34.17	1.07	126	500	6.25	34.29	0.51	26.99	108	0.87
433	6.80	34.25	0.73	118	600	5.40	34.38	0.34	27.16	92	0.98
496	6.28	34.29	0.52	109	700	4.87	34.36	0.28	27.21	87	1.07
560	5.68	34.33	0.38	99	800	4.48	34.41	0.33	27.29	80	1.16
613	5.31	34.38	0.32	90	1000	3.84	34.47	0.43	27.40	69	1.33
696	4.88	34.36	0.28	87							
807	4.45	34.41	0.34	80							
923	4.04	34.47	0.36	71							
1020	3.78	34.47	0.48	68							
1162	3.40	-	-								
1211	3.30	34.52	0.66	60							

D-20
(70.63)

HORIZON; October 17, 1958; 1730 GCT; 35°45'N, 122°38.5'W; sounding, 1270 fm; wind, 330°, force 3; weather, fog; sea, moderate; wire angle, 09°.

0	16.12	33.37	5.49	345	0	16.12	33.37	5.49	24.49	345	0.00
9	16.10	33.37	5.61	345	10	16.10	33.37	5.61	24.49	345	0.03
39	11.85	33.48	4.20	253	20	16.08	33.37	5.59	24.50	344	0.07
59	10.97	33.58	3.44	230	30	15.95	33.37	5.55	24.52	342	0.10
73	10.43	33.67	3.12	214	50	11.29	33.54	3.81	25.60	239	0.16
98	9.76	33.80	2.78	194	75	10.40	33.68	3.10	25.87	214	0.22
128	9.34	33.86	2.54	182	100	9.73	33.80	2.77	26.09	193	0.27
162	9.15	33.98	2.22	172	150	9.22	33.88	2.40	26.23	180	0.36
191	8.75	34.09	1.87	157	200	8.67	34.11	1.79	26.50	154	0.45
217	8.52	34.14	1.66	150	250	8.15	34.16	1.43	26.62	143	0.52
255	8.10	34.17	1.39	142	300	7.77	34.20	1.18	26.71	134	0.60
304	7.74	34.21	1.15	134	400	6.98	34.22	0.90	26.83	123	0.73
350	7.38	34.22	0.99	128	500	6.22	34.27	0.48	26.97	110	0.85
409	6.88	34.22	0.90	122	600	5.41	34.33	0.35	27.12	96	0.96
457	6.53	34.25	0.61	115	700	4.96	34.35	0.34	27.19	89	1.06
517	6.10	34.28	0.44	107	800	4.53	34.38	0.34	27.26	82	1.15
569	5.57	34.32	0.35	98	1000	3.83	34.49	0.51	27.42	67	1.31
649	5.20	34.34	0.36	92							
758	4.70	34.36	0.33	86							
866	4.28	34.42	0.35	77							
975	3.92	34.49	0.48	68							
1104	3.52	34.51	0.64	62							
1154	3.43	34.52	0.67	61							

a) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m

D-21
(70.62)

HORIZON; October 17, 1958; 1947 GCT; 35°48'N, 122°33'W; sounding, 1755 fm; wind, 320°, force 3; weather, fog; sea, moderate; wire angle, 10°.

0	16.18	33.40	5.98	344	0	16.18	33.40	5.98	24.50	344	0.00
10	16.14	33.40	6.04	343	10	16.14	33.40	6.04	24.51	343	0.03
39	12.22	33.50	4.36	258	20	16.10	33.40	6.03	24.52	342	0.07
59	10.86	33.58	3.57	229	30	15.00	33.42	5.54	24.78	318	0.10
75	10.38	33.64	3.24	216	50	11.40	33.55	3.88	25.59	240	0.16
98	9.92	33.73	3.04	202	75	10.38	33.64	3.24	25.85	216	0.21
128	9.58	33.85	2.54	188	100	9.90	33.74	3.03	26.01	201	0.27
163	9.14	33.94	2.32	174	150	9.32	33.90	2.41	26.23	180	0.36
192	8.88	34.05	1.98	162	200	8.78	34.07	1.89	26.45	159	0.45
217	8.56	34.11	1.74	153	250	8.45	34.14	1.51	26.55	150	0.53
257	8.44	34.14	1.49	150	300	7.86	34.17	1.32	26.67	138	0.60
305	7.77	34.18	1.29	136	400	6.99	34.23	0.85	26.84	122	0.74
349	7.24	34.19	1.12	129	500	6.10	34.25	0.54	26.97	110	0.86
407	6.93	34.24	0.79	120	600	5.42	34.29	0.33	27.08	99	0.97
457	6.42	34.25	0.69	114	700	4.96	34.34	0.29	27.18	90	1.07
516	5.99	34.25	0.48	108	800	4.58	34.40	0.27	27.27	81	1.17
569	5.62	34.28	0.35	102	1000	3.94	34.49	0.46	27.40	68	1.32
646	5.18	34.30	0.31	95							
756	4.74	34.38	0.29	84							
865	4.34	34.42	0.29	77							
974	4.02	34.47	0.43	70							
1104	3.59	34.52	0.57	62							
1153	3.48	34.53	0.66	61							

D-22
(70.60)

HORIZON; October 17, 1958; 2202 GCT; 35°53'N, 122°23'W; sounding, 1715 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 20°.

0	16.16	33.37	5.33	346	0	16.16	33.37	5.33	24.48	346	0.00
10	16.00	33.37	4.97u	343	10	16.00	33.37	5.52	24.51	343	0.03
24	15.88	33.38	5.67	340	20	15.92	33.38	5.61	24.54	340	0.07
39	12.74	33.29	4.83	283	30	15.60	33.37	5.60	24.61	334	0.10
72	10.92	33.55	3.59	232	50	12.00	33.37	4.42	25.34	264	0.16
96	10.24	33.68	3.14	211	75	10.79	33.57	3.49	25.72	228	0.22
123	9.62	33.80	2.78	192	100	10.15	33.71	3.07	25.94	207	0.28
155	9.16	33.89	2.47	178	150	9.21	33.87	2.51	26.22	181	0.38
183	8.86	34.02	2.03	165	200	8.72	34.02	2.05	26.42	162	0.46
206	8.64	34.02	2.05	161	250	8.26	34.13	1.70	26.58	147	0.54
243	8.32	34.12	1.73	148	300	7.68	34.16	1.37	26.68	137	0.62
290	7.80	34.16	1.42	138	400	6.80	34.23	0.80	26.86	120	0.75
332	7.38	34.18	1.12	131	500	6.15	34.30	0.47	27.01	106	0.87
388	6.88	34.21	0.89	122	600	5.49	34.33	0.32	27.10	97	0.97
435	6.58	34.27	0.59	114	700	5.00	34.37	0.25	27.20	88	1.07
491	6.24	34.29	0.50	109	800	4.61	34.44	0.26	27.29	79	1.16
542	5.77	34.33	0.40	99	1000	3.94	34.51	0.43	27.42	66	1.32
617	5.42	34.33	0.30	96							
721	4.89	34.38	0.23	86							
827	4.52	34.45	0.28	76							
934	4.18	34.49	0.39	70							
1060	3.73	34.53	0.49	63							
1109	3.61	34.55	0.59	60							

SIO

CCOFI 5810

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

D-23 (70.58)

HORIZON; October 18, 1958; 0032 GCT; 35°58'N, 122°12'W; sounding, 970 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 15°.

0	16.39	33.51	5.29	340	0	16.39	33.51	5.29	24.54	340	0.00
9	16.34	33.49	5.43	341	10	16.34	33.49	5.43	24.53	341	0.03
38	12.95	33.39	4.50	280	20	16.23	33.48	5.42	24.54	340	0.07
57	11.61	33.53	3.84	245	30	15.18	33.44	5.11	24.76	320	0.10
72	10.96	33.62	3.43	227	50	11.87	33.48	3.98	25.45	254	0.16
96	10.11	33.62	3.47	213	75	10.81	33.62	3.43	25.76	225	0.22
124	9.42	33.83	2.95	187	100	10.02	33.64	3.43	25.91	210	0.27
157	9.24	33.93	2.40	177	150	9.25	33.93	2.41	26.26	177	0.37
187	8.88	34.00	2.23	166	200	8.76	34.07	1.97	26.45	159	0.45
211	8.66	34.09	1.81	156	250	8.30	34.14	1.59	26.58	147	0.53
249	8.30	34.14	1.59	147	300	7.59	34.13	1.51	26.67	138	0.61
298	7.60	34.13	1.53	138	400	6.70	34.18	0.90	26.84	122	0.74
341	7.18	34.14	1.25	131	500	6.07	34.29	0.46	27.00	106	0.86
399	6.70	34.18	0.90	122	600	5.48	34.30	0.34	27.09	98	0.97
447	6.43	34.27	0.59	112	700	5.03	34.38	0.30	27.20	88	1.07
504	6.02	34.29	0.42	106	800	4.57	34.43	0.31	27.30	78	1.16
557	5.60	34.29	0.39	100	1000	3.83	34.49	0.47	27.42	67	1.32
634	5.42	34.31	0.31	97							
741	4.79	34.42	0.30	82							
848	4.37	34.44	0.33	76							
956	3.96	34.48	0.45	68							
1085	3.59	34.52	0.55	62							
1135	3.48	34.55	0.64	59							

D-24 (70.55)

HORIZON; October 18, 1958; 0245 GCT; 36°03'N, 122°02'W; sounding, 690 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 16°.

0	15.14	33.47	5.51	317	0	15.14	33.47	5.51	24.79	317	0.00
9	15.11	33.41	5.68	321	10	15.10	33.41	5.68	24.75	321	0.03
38	14.02	33.46	5.14	296	20	14.95	33.41	5.60	24.79	317	0.06
57	11.52	33.38	4.48	254	30	14.68	33.43	5.48	24.86	310	0.10
72	10.55	33.40	4.37	237	50	13.74	33.45	5.04	25.07	290	0.16
95	9.89	33.56	3.97	214	75	10.44	33.42	4.32	25.66	234	0.22
123	9.54	33.78	3.15	192	100	9.80	33.60	3.83	25.91	210	0.28
157	9.38	33.95	2.50	177	150	9.41	33.89	2.62	26.21	182	0.38
186	8.90	34.04	2.24	163	200	8.80	34.05	2.12	26.43	161	0.46
209	8.75	34.06	2.04	159	250	8.15	34.12	1.65	26.58	146	0.54
248	8.15	34.12	1.65	146	300	7.78	34.22	1.26	26.72	133	0.61
298	7.78	34.22	1.26	133	400	6.98	34.23	0.88	26.84	122	0.74
341	7.59	34.23	0.99	130	500	6.15	34.30	0.65	27.00	106	0.86
400	6.98	34.23	0.88	122	600	5.53	34.31	0.40	27.09	98	0.97
448	6.60	34.25	0.73	116	700	5.18	34.36	0.29	27.17	90	1.07
506	6.09	34.30	0.64	106	800	4.76	34.41	0.37	27.26	82	1.17
560	5.71a)	34.30	0.43	101	1000	3.92	34.52	0.48	27.43	66	1.33
639	5.39	34.33	0.35	95							
748	5.02	34.38	0.28	88							
857	4.46	34.43	0.43	78							
965	4.02	34.51	0.45	68							
1095	3.67	34.52	0.57	63							
1145	3.51	34.52	0.60	61							

a) Mean value of 5.68 and 5.74°C.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
60.52-S	XI-1	1030	37°53.5'	123°02.0'	43	calm		overcast	slight	14.10	33.26
63.55-S	1	0330	37°16.0'	122°50.0'	120	calm		cloudy	rough	14.99	33.46
67.50-S	X-30	1145	36°49.0'	122°04.5'	52	calm		fog	moderate	14.86	33.41
67.55-S	30	1433	36°39.0'	122°26.0'	1120	160°	2	fog	slight	14.94	-
73.51-S	30	0115	35°36.5'	121°22.0'	160	320°	2	fog	moderate	15.56	33.39
77.50-S	28	0430	35°04.0'	120°52.0'	72	340°	5	partly cloudy	very rough	16.08	33.42
87.50-S	24	0015	33°20.0'	119°39.5'	40	320°	3	cloudy	very rough	17.78	33.48
93.35-S	20	1015	32°40.0'	117°52.0'	300	240°	3	clear	rough	20.81	33.64
93.45-S	20	0415	32°20.0'	118°32.0'	700	320°	6	clear	high	20.11	33.61
93.55-S	19	2205	31°57.5'	119°08.0'	880	340°	6	cloudy	very rough	19.52	-
97.35-S	17	1055	32°05.5'	117°29.0'	525	320°	3	partly cloudy	moderate	21.53	33.57
97.45-S	17	1710	31°45.0'	118°09.0'	800	320°	2	partly cloudy	rough	20.28	33.64
97.55-S	18	0020	31°26.0'	118°52.0'	400	320°	4	fog	rough	19.27	33.49
100.29-P	20	1930	31°42.0'	116°43.5'	60	090°	2	cloudy	very rough	17.41	33.57
100.35-P	20	1454	31°30.5'	117°10.5'	620	340°	4	overcast	rough	21.19	33.63
100.45-P	20	0720	31°10.5'	117°49.5'	900	340°	4	partly cloudy	very rough	21.09	33.77
100.55-P	20	0110	30°52.0'	118°29.5'	1300	340°	6	overcast	high	21.14	33.64
103.45-P	17	1459	30°35.0'	117°24.0'	1300	280°	2	clear	moderate	20.91	33.58
103.55-P	17	2124	30°16.0'	118°05.5'	1400	280°	2	clear	moderate	21.41	33.65

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
107.45-P	X-16	1503	30°04.0'	116°54.0'	1100	340°	3	clear	moderate	21.58	33.68
107.55-P	16	0823	29°44.0'	117°34.5'	1800	340°	3	clear	moderate	21.10	33.57
110.45-P	13	2130	29°24.0'	116°37.5'	450	340°	2	fog	moderate	21.30	33.62
110.55-P	14	0400	29°02.5'	117°16.0'	2000	320°	2	fog	moderate	21.64	33.71
113.45-P	12	2110	28°57.0'	116°15.5'	500	330°	5	cloudy	rough	21.15	33.64
113.55-P	12	1335	28°34.5'	116°50.5'	1900	320°	5	cloudy	rough	22.21	33.93
117.45-P	10	0310	28°19.0'	115°55.0'	1700	320°	3	partly cloudy	moderate	21.64	33.68
117.55-P	10	1005	28°01.0'	116°34.5'	1900	320°	3	partly cloudy	moderate	22.02	33.78
120.40-B	10	2230	27°56.5'	115°14.0'	21	310°	4	partly cloudy	moderate	22.76	33.82
120.55-B	11	0825	27°23.0'	116°12.5'	2000	320°	3	partly cloudy	moderate	22.18	33.75
123.45-B	13	1210	27°10.0'	115°10.0'	-	-	-	missing	missing	22.88	34.04
123.55-B	13	0525	26°48.0'	115°49.5'	-	-	-	missing	missing	22.24	33.76
127.45-B	15	1015	26°33.5'	114°48.5'	1800	320°	2	clear	moderate	25.22	34.57
127.55-B	15	1640	26°13.5'	115°27.0'	2000+	340°	4	clear	moderate	22.53	33.78
130.45-B	17	0630	25°59.0'	114°27.0'	1700	calm		clear	calm	24.77	34.25
130.55-B	17	0000	25°38.0'	115°03.0'	2000+	320°	2	clear	rough	25.18	34.45
133.35-B	18	0550	25°45.0'	113°23.0'	380	130°	2	cloudy	slight	26.15	34.43
133.45-B	18	1240	25°24.5'	114°04.5'	2000	calm		partly cloudy	moderate	25.14	34.21
133.55-B	18	1910	25°05.0'	114°42.0'	2000	270°	2	cloudy	rough	24.66	34.16

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
137.45-B	X-19	1300	24°51.0'	113°42.5'	1650	310°	4	cloudy	slight	26.04	34.09
137.55-B	19	0650	24°30.0'	114°20.5'	2000+	060°	1	cloudy	slight	23.90	33.91
140.45-B	20	1750	24°16.0'	113°21.0'	2000+	280°	2	overcast	moderate	26.68	34.56
140.55-B	28	1200	23°47.0'	114°07.0'	2000+	330°	3	overcast	rough	26.60	34.89
143.45-B	21	0530	23°41.5'	112°59.5'	1800	330°	1	cloudy	slight	28.06	34.72
143.55-B	28	0430	23°19.0'	113°40.5'	2000+	320°	4	partly cloudy	rough	26.92	34.77
147.35-B	22	1830	23°26.5'	112°00.5'	1600	-	1	overcast	rough	27.98	34.70
147.45-B	23	0045	23°06.0'	112°38.0'	1800	320°	3	cloudy	rough	28.32	34.67
147.55-B	23	0630	22°46.0'	113°15.5'	2000	320°	2	partly cloudy	rough	27.32	34.87
150.35-B	24	0755	22°54.0'	111°41.0'	1600	320°	2	clear	rough	27.90	34.81
150.45-B	24	0050	22°32.5'	112°17.5'	1800	340°	3	partly cloudy	very rough	28.23	34.75
150.55-B	23	1845	22°12.0'	112°54.0'	1900	320°	4	partly cloudy	rough	27.56	34.81
153.25-B	25	1940	22°38.0'	110°42.5'	1300	340°	5	partly cloudy	very rough	27.66	34.61
153.35-B	26	0210	22°23.0'	111°23.5'	1800	320°	5	partly cloudy	rough	27.88	34.73
153.45-B	26	0845	21°58.0'	111°56.0'	1700	320°	5	partly cloudy	rough	27.06	-
153.55-B	26	1450	21°37.5'	112°33.0'	2000	320°	5	partly cloudy	rough	26.44	34.54

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5811

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3^{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3^{-5} 10^{-5} cm/g	ΔD dyn. m
80.51	PAOLINA-T; November 22, 1958; 0228 GCT; 34°26.5'N, 120°31.5'W; sounding, 43 fm; wind, 290°, force 4; weather, missing; sea, moderate; wire angle, 00°.										
2	15.23	33.51	5.84	316	0	(15.23)	(33.51)	(5.84)	(24.80)	(316)	(0.00)
12	15.00	33.50	5.66	312	10	15.05	33.50	5.68	24.83	313	0.03
33	13.82	33.48	5.10	290	20	14.68	33.49	5.50	24.89	307	0.06
53	12.84	33.49	4.67	271	30	14.25	33.48	5.37	24.98	298	0.09
					50	12.86	33.49	4.68	25.26	272	0.15
80.55	PAOLINA-T; November 22, 1958; 0513 GCT; 34°19'N, 120°48.5'W; sounding, 400 fm; wind, 320°, force 5; weather, missing; sea, rough; wire angle, 10°.										
2	15.30	33.39	6.21	327	0	(15.30)	(33.39)	(6.21)	(24.68)	(327)	(0.00)
12	15.32	33.39	6.18	327	10	15.31	33.39	6.20	24.68	327	0.03
32	15.25	33.39	6.24	325	20	15.30	33.39	6.21	24.69	326	0.06
48	12.40	33.19	6.24	285	30	15.27	33.39	6.21	24.69	326	0.10
57	11.58	33.22	6.04	268	50	12.33	33.19	6.22	25.14	283	0.16
67	10.87	33.32	5.78	248	75	10.45	33.38	5.29	25.62	237	0.22
77	10.39	33.39	5.16	234	100	9.49	33.53	4.63	25.91	210	0.28
96	9.59	33.51	4.67	213	150	8.68	33.80	4.03	26.25	178	0.38
111	9.22	33.62	4.58	200	200	8.12	33.94	3.21	26.44	160	0.46
125	8.97	33.72	4.51	188	250	7.30	34.01	2.49	26.62	143	0.54
150	8.68	33.80	4.03	178	300	6.78	34.09	2.02	26.76	130	0.61
179	8.38	33.89	3.55	167	400	6.20	34.22	1.03	26.94	113	0.74
218	7.84	33.97	2.90	153	500	5.65	34.26	0.65	27.04	103	0.85
273	6.96	34.04	2.28	136	600	5.11	34.32	0.50	27.15	93	0.95
358	6.42	34.20	1.31	117							
463	5.82	34.25	0.75	106							
609	5.04	34.33	0.48	92							
80.60	PAOLINA-T; November 22, 1958; 0853 GCT; 34°09'N, 121°09'W; sounding, 1175 fm; wind, 320°, force 5; weather, overcast; sea, very rough; wire angle, 15°.										
2	14.72	33.38	5.66	315	0	(14.72)	(33.38)	(5.66)	(24.81)	(315)	(0.00)
11	14.70	33.38	5.68	315	10	14.70	33.38	5.67	24.82	314	0.03
31	14.71	33.39	5.57	314	20	14.70	33.39	5.62	24.82	314	0.06
46	14.26	33.35	5.37	308	30	14.71	33.39	5.60	24.82	314	0.09
55	11.80	33.40	4.62	258	50	13.10	33.36	5.00	25.13	285	0.15
64	11.41	33.47	4.48	246	75	10.09	33.36	4.52	25.67	233	0.22
74	10.18	33.36	4.52	234	100	9.40	33.61	3.98	25.98	203	0.27
94	9.57	33.48	4.30	215	150	9.30	33.92	2.44	26.24	178	0.37
107	9.76	33.80	3.01	194	200	8.81	34.03	2.01	26.41	163	0.46
121	9.58	33.84	2.83	188	250	7.87	34.10	1.90	26.61	144	0.53
147	9.36	33.91	2.49	180	300	7.25	34.13	1.57	26.72	134	0.61
175	9.06	33.99	2.22	170	400	6.39	34.19	0.86	26.88	118	0.74
213	8.64	34.05	1.91	159	500	5.69	34.26	0.62	27.03	104	0.85
266	7.57	34.11	1.87	139	600	(5.21)	(34.40)	(0.32)	(27.20)	(88)	(0.95)
349	6.82	34.16	1.06	125							
450	5.94	34.22	0.71	110							
594	5.24	34.39	0.35	89							
83.43	PAOLINA-T; November 21, 1958; 1844 GCT; 34°08'N, 119°34'W; sounding, 134 fm; wind, calm; weather, partly cloudy; sea, slight; wire angle, 00°.										
2	16.68	33.57	5.38	344	0	(16.68)	(33.57)	(5.38)	(24.50)	(344)	(0.00)
7	16.62	33.58	5.31	342	10	16.61	33.57	5.32	24.52	342	0.03
12	16.60	33.56	5.33	342	20	16.48	33.57	5.39	24.56	338	0.07
18	16.52	33.57	5.40	340	30	14.28	33.51	4.85	25.00	296	0.10
23	16.26	33.57	5.35	334	50	12.65	33.50	4.48	25.32	266	0.16
32	13.88	33.50	4.74	290	75	11.12	33.61	3.90	25.69	231	0.22
42	12.78	33.49	4.40	269							
52	12.61	33.50	4.47	265							
62	11.90	33.58	4.08	247							
71	11.28	33.60	3.95	234							
86	10.83	33.65	3.78	223							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

83.60

PAOLINA-T; November 22, 1958; 1449 GCT; 33°34'N, 120°45'W; sounding, 830 fm; wind, 320°, force 5; weather, overcast; sea, very rough; wire angle, 18°.

4	16.44	33.53	5.37	340	0	16.5	(33.53)	(5.37)	(24.52)	(342)	(0.00)
14	16.38	33.54	5.47	339	10	16.41	33.54	5.42	24.55	340	0.03
33	15.58	33.51	5.29	324	20	16.28	33.54	5.45	24.59	336	0.07
47	13.28	33.44	5.08	282	30	15.76	33.52	5.32	24.68	327	0.10
56	12.86	33.50	4.59	270	50	13.18	33.45	5.02	25.18	280	0.16
66	11.75	33.49	4.44	250	75	11.03	33.58	4.11	25.68	232	0.22
74	11.10	33.58	4.13	232	100	9.92	33.70	3.40	25.98	204	0.28
93	10.06	33.66	3.63	210	150	9.07	33.87	2.65	26.24	178	0.38
106	9.80	33.73	3.26	200	200	8.34	34.06	2.12	26.50	154	0.46
120	9.58	33.76	3.06	194	250	7.95	34.10	1.73	26.60	144	0.54
144	9.14	33.85	2.70	181	300	7.42	34.15		26.70	135	0.61
169	8.82	34.02	2.45	164	400	6.39	34.20		26.90	116	0.74
206	8.26	34.07	2.03	152	500	5.80	34.26	0.63	27.01	106	0.86
254	7.89	34.11	1.70	144							
333	7.05	34.17	0.62u	128							
431	6.18	34.22	0.74	112							
572	5.42	34.31	0.46	97							

87.40

PAOLINA-T; November 23, 1958; 1931 GCT; 33°40'N, 118°59'W; sounding, 450 fm; wind, 090°, force 2; weather, haze; sea, moderate; wire angle, 02°.

1	16.92	33.55	5.34	350	0	(16.92)	(33.55)	(5.34)	(24.44)	(350)	(0.00)
11	16.50	33.53	5.47	342	10	16.51	33.53	5.47	24.52	343	0.03
22	16.33	33.51	5.37	339	20	16.38	33.52	5.38	24.54	340	0.07
32	15.70	33.49	5.37	328	30	15.83	33.50	5.37	24.64	330	0.10
37	15.40	33.50	5.21	321	50	13.32	33.48	4.92	25.17	281	0.16
42	15.02	33.48	5.16	315	75	11.70	33.65	3.70	25.62	238	0.23
47	13.98	33.48	5.09	293	100	10.93	33.70	3.32	25.79	221	0.29
52	13.07	33.48	4.79	276	150	9.56	33.89	2.72	26.18	184	0.39
57	12.90	33.48	4.66	272							
62	12.02	33.58	3.98	249							
67	11.92	33.64	3.90	242							
72	11.80	33.64	3.82	240							
82	11.48	33.68	3.42	232							
91	11.42	33.68	3.54	231							
101	10.92	33.70	3.31	221							
126	10.26	33.82	2.95	201							
150	9.56	33.89	2.72	184							

87.60

PAOLINA-T; November 23, 1958; 0514 GCT; 33°00'N, 120°21.5'W; sounding, 530 fm; wind, 280°, force 6; weather, partly cloudy; sea, very rough; wire angle, 08°.

2	14.92	33.50	5.54	310	0	(14.92)	(33.50)	(5.54)	(24.86)	(310)	(0.00)
12	14.92	33.51	5.46	310	10	14.92	33.51	5.48	24.86	310	0.03
32	14.02	33.47	5.16	294	20	14.92	33.51	5.41	24.86	310	0.06
47	12.17	33.48	4.58	259	30	14.04	33.47	5.17	25.01	296	0.09
57	11.48	33.46	4.57	248	50	11.65	33.47	4.57	25.48	251	0.15
67	10.61	33.48	4.36	232	75	10.32	33.51	4.07	25.75	225	0.21
76	10.32	33.51	4.06	225	100	9.59	33.80	3.01	26.10	192	0.26
96	9.66	33.77	3.09	195	150	9.01	34.02	2.24	26.36	167	0.35
110	9.40	33.86	2.82	184	200	8.60	34.11	1.95	26.51	153	0.43
124	9.22	33.97	2.47	177	250	8.04	34.16	1.50	26.63	142	0.51
149	9.04	34.01	2.25	168	300	7.42	34.21	1.16	26.76	130	0.58
177	8.78	34.09	2.11	158	400	6.80	34.28	0.77	26.90	116	0.70
236	8.30	34.14	1.69	147	500	6.20	34.33	0.47	27.02	105	0.82
268	7.78	34.18	1.33	136	600	5.60	34.38	0.33	27.14	94	0.92
352	7.06	34.26	0.92	121							
456	6.44	34.31	0.54	109							
600	5.60	34.38	0.33	94							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δ_{T_3}	Z	T	S	O_2	σ_t	δ_{T_3}	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

90.28 PAOLINA-T; November 21, 1958; 0319 GCT; 33°28.5'N, 117°47'W; sounding, 210 fm; wind, 040°, force 2; weather, partly cloudy; sea, slight; wire angle, 00°.

1	16.50	33.49	5.44	345	0	(16.50)	(33.49)	(5.44)	(24.50)	(345)	(0.00)
11	15.10	33.47	5.62	316	10	15.15	33.47	5.61	24.77	318	0.03
32	14.24	33.49	5.00	298	20	14.72	33.48	5.40	24.88	308	0.06
52	13.32	33.55	4.49	275	30	14.30	33.49	5.06	24.98	299	0.09
77	12.42	33.58	4.29	256	50	13.39	33.55	4.50	25.22	276	0.15
102	10.82	33.72	3.20	218	75	12.65	33.60	4.33	25.40	259	0.22
126	10.46	33.87	2.72	201	100	10.90	33.71	3.28	25.81	220	0.28
165	9.72	33.96	2.41	182	150	10.00	33.93	2.53	26.13	189	0.38
206	9.19	34.07	2.07	165	200	9.36	34.06	2.14	26.36	168	0.47
256	8.44	34.14	1.66	149	250	8.54	34.13	1.70	26.54	151	0.56
306	7.94	34.22	1.31	136	300	8.00	34.20	1.38	26.67	138	0.63

90.30 PAOLINA-T; November 21, 1958; 0119 GCT; 33°24.5'N, 117°55'W; sounding, 350 fm; wind, calm; weather, partly cloudy; sea, slight; wire angle, 07°.

1	16.88	33.49	5.33	354	0	(16.88)	(33.49)	(5.33)	(24.40)	(354)	(0.00)
11	16.50	33.48	5.47	346	10	16.54	33.48	5.45	24.48	346	0.04
31	15.82	33.45	5.75a)	333	20	16.20	33.47	5.58	24.54	340	0.07
41	15.14	33.43	5.29	320	30	15.90	33.45	5.72	24.60	334	0.10
51	14.14	33.46	4.98	298	50	14.12	33.46	5.00	24.98	298	0.17
61	13.40	33.54	4.48	277	75	13.03	33.53	4.27	25.27	271	0.24
70	13.16	33.53	4.35	273	100	12.32	33.58	3.82	25.45	254	0.30
86	12.74	33.53	4.07	265	150	10.41	33.76	2.94	25.93	208	0.42
101	12.28	33.58	3.81	254	200	8.77	34.14	1.77	26.50	154	0.51
115	11.80	33.61	3.54	242	250	8.15	34.32	1.44	26.74	132	0.59
140	10.94	33.68	3.17	222	300	7.80	34.30	1.08	26.78	128	0.66
170	9.31	34.01	2.23	172	400	6.98	34.32	0.56	26.90	116	0.78
204	8.70	34.14	1.74	153	500	6.18	34.36	0.34	27.05	103	0.90
252	8.14	34.32	1.42	132							
331	7.58	34.29	0.85	126							
431	6.71	34.33	0.48	111							
559	5.77	34.37	0.25	96							

90.37 PAOLINA-T; November 20, 1958; 1938, 2021, 2048 GCT; 33°11'N, 118°24'W; sounding, 647 fm; wind, direction missing, force 1; weather, partly cloudy; sea, slight; wire angle, 00°, 00°, 00°.

1	17.52	33.55	6.02	363	0	(17.52)	(33.55)	(6.02)	(24.30)	(363)	(0.00)
11	17.03	33.58	6.18	350	10	17.05	33.58	6.18	24.43	351	0.04
31	16.38	33.54	6.07	339	20	16.94	33.58	6.16	24.46	348	0.07
41	15.57	33.51	6.07	324	30	16.43	33.54	6.07	24.55	340	0.10
52	13.86	33.48	5.35	290	50	13.98	33.48	5.40	25.04	293	0.17
61	12.77	33.61	4.68	260	75	12.38	33.66	3.77	25.50	248	0.24
71	12.48	33.66	3.88	252	100	11.44	33.78	3.31	25.76	224	0.30
85	12.01	33.71	3.59	239	150	9.88	33.87	3.17	26.11	191	0.40
100	11.44	33.78	3.31	224	200	8.72	34.04	2.46	26.44	160	0.49
					250	8.19	34.14	1.92	26.60	145	0.57
113	11.03	33.81	3.22	215	300	7.90	34.21	1.58	26.69	136	0.64
138	10.24	33.85	3.21	198	400	7.06	34.27	0.96	26.86	120	0.77
168	9.31	33.91	3.00	179	500	6.19	34.31	0.49	27.01	106	0.89
204	8.66	34.05	2.42	159							
253	8.18	34.14	1.91	145							
334	7.64	34.27	1.32	128							
434	6.70	34.27	0.75	115							
565	5.89	34.35	0.35	100							

a) Alternate value, 5.08 ml/L, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	ΔD dyn. m

90.45 PAOLINA-T; November 20, 1958; 1355, 1418 GCT; 32°49.5'N, 118°55.5'W; sounding, 950 fm; wind, direction missing, force 1; weather, partly cloudy; sea, slight; wire angle, 00°, 03°.

3	16.51	33.50	5.37	344	0	(16.51)	(33.50)	(5.37)	(24.50)	(344)	(0.00)
13	16.50	33.49	5.47	345	10	16.50	33.49	5.46	24.50	345	0.03
33	16.52	33.48	5.42	346	20	16.51	33.48	5.46	24.50	345	0.07
43	15.34	33.42	5.44	325	30	16.52	33.48	5.43	24.49	346	0.10
53	13.87	33.39	5.38	298	50	14.02	33.39	5.39	24.96	300	0.17
63	13.02	33.37	5.24	283	75	12.47	33.45	4.88	25.31	267	0.24
73	12.47	33.44	4.89	268	100	10.67	33.50	4.38	25.69	231	0.30
87	11.16	33.48	4.36	241	150	9.22	33.90	2.89	26.24	179	0.40
102	10.60	33.51	4.38	230	200	8.61	34.05	2.18	26.46	158	0.49
117	9.76	33.69	3.60	200	250	8.15	34.13	1.87	26.60	145	0.57
141	9.35	33.86	3.00	183	300	7.50	34.17	1.60	26.72	134	0.64
170	8.98	33.98	2.69	169	400	6.70	34.20	0.84	26.85	121	0.77
					500	6.20	34.26	0.48	26.97	110	0.89
205	8.54	34.06	2.13	156							
255	8.05	34.14	1.84	144							
334	7.06	34.18	1.31	127							
434	6.57	34.21	0.68	118							
565	5.87	34.34	0.41	100							

90.50 PAOLINA-T; November 20, 1958; 1025 GCT; 32°43'N, 119°16'W; sounding, 60 fm; wind, 340°, force 2; weather, clear; sea, moderate; wire angle, 00°.

2	16.60	33.54	5.19	343	0	(16.60)	(33.54)	(5.19)	(24.51)	(343)	(0.00)
12	16.60	33.53	5.32	344	10	16.60	33.53	5.31	24.50	344	0.03
32	16.61	33.53	5.31	344	20	16.60	33.53	5.31	24.50	344	0.07
52	14.20	33.39	5.44	304	30	16.61	33.53	5.31	24.50	344	0.10
77	12.82	33.42	4.83	275	50	14.40	33.40	5.44	24.88	308	0.17
103	11.08	33.53	4.21	236	75	12.86	33.42	4.87	25.22	276	0.24
					100	11.40	33.51	4.31	25.56	243	0.31

90.55 PAOLINA-T; November 20, 1958; 0732 GCT; 32°34.5'N, 119°37'W; sounding, 500 fm; wind, 340°, force 2; weather, partly cloudy; sea, slight; wire angle, 03°.

1	15.62	33.44	5.28	330	0	(15.62)	(33.44)	(5.28)	(24.65)	(330)	(0.00)
11	15.65	33.45	5.55	330	10	15.65	33.45	5.54	24.65	330	0.03
31	15.56	33.44	5.32	328	20	15.02	33.45	5.54	24.65	330	0.07
57	15.35	33.43	5.36	325	30	15.56	33.44	5.33	24.67	328	0.10
67	12.98	33.42	5.01	278	50	15.55	33.44	5.32	24.67	328	0.16
76	11.78	33.43	4.72	255	75	12.20	33.42	4.85	25.35	264	0.24
86	10.72	33.44	4.36	236	100	10.05	33.51	4.05	25.81	220	0.30
101	10.00	33.52	4.02	219	150	8.84	33.88	2.55	26.29	174	0.40
116	9.70	33.60	3.73	208	200	8.02	34.06	1.88	26.56	149	0.48
135	9.11	33.77	2.94	186	250	7.82	34.10	1.57	26.62	143	0.56
155	8.78	33.90	2.47	172	300	7.32	34.18	1.15	26.75	130	0.63
179	8.45	33.96	2.15	163	400	6.74	34.27	0.59	26.90	116	0.76
203	7.98	34.07a)	1.82	147	500	6.36	34.32	0.47	27.00	107	0.87
251	7.81	34.10a)	1.55	143							
331	7.00	34.22	0.93	123							
432	6.62	34.28	0.64	114							
562	5.82	34.35	0.33	99							

a) The use of these values results in an unusual density structure, but nevertheless values were accepted in drawing the property curve.

SIO

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	ΔD dyn. m
90.60	PAOLINA-T; November 20, 1958; 0237, 0323 GCT; 32°25.5'N, 119°57'W; sounding, 550 fm; wind, 360°, force 4; weather, partly cloudy; sea, rough; wire angle, 05°, 06°.										
3	16.05	33.48	5.89	336	0	(16.05)	(33.48)	(5.89)	(24.59)	(336)	(0.00)
12	16.04	33.48	5.89	336	10	16.04	33.48	5.89	24.59	336	0.03
32	15.99	33.44	6.05	337	20	16.01	33.45	6.00	24.58	337	0.07
57	15.94	33.45	6.06	336	30	15.99	33.44	6.03	24.58	337	0.10
67	12.75	33.33	5.56	280	50	15.96	33.45	6.05	24.59	336	0.17
76	11.42	33.40	5.26	252	75	11.43	33.40	5.27	25.47	252	0.24
86	11.01	33.46	5.09	240	100	10.09	33.58	4.24	25.85	216	0.30
101	10.07	33.58	4.24	216	150	8.72	33.86	3.00	26.29	174	0.40
115	9.46	33.66	3.65	200	200	8.09	34.04	2.33	26.52	152	0.48
					250	7.61	34.15	1.62	26.68	137	0.56
134	9.01	33.80	3.12	183	300	7.19	34.22	1.24	26.80	126	0.62
156	8.62	33.88	2.95	171	400	6.44	34.28	0.77	26.95	111	0.75
180	8.36	33.96	2.70	161	500	5.98	34.32	0.50	27.04	103	0.86
204	8.04	34.05	2.28	150							
254	7.59	34.16	1.54	136							
332	6.88	34.25	1.06	120							
433	6.26	34.29	0.67	108							
563	5.76	34.34	0.40	98							
90.70	PAOLINA-T; November 19, 1958; 1948 GCT; 31°53.6'N, 120°29.5'W; sounding, 2125 fm; wind, 360°, force 3; weather, cloudy; sea, moderate; wire angle, 05°.										
3	16.73	33.58	4.98	343	0	(16.73)	(33.58)	(4.98)	(24.51)	(343)	(0.00)
13	16.71	33.58	5.36	343	10	16.72	33.58	5.30	24.51	343	0.03
33	16.66	33.60	5.34	340	20	16.69	33.58	5.36	24.52	342	0.07
62	15.89	33.48	5.22	332	30	16.67	33.60	5.35	24.54	341	0.10
73	13.82	33.37	5.44	298	50	16.48	33.58	5.31	24.56	339	0.17
83	12.72	33.43	5.44	272	75	13.60	33.38	5.44	25.04	293	0.25
98	11.33	33.47	4.80	244	100	11.18	33.48	4.77	25.58	242	0.32
112	10.25	33.55	4.56	221	150	9.22	33.74	4.11	26.12	190	0.43
127	9.60	33.57	3.98	209	200	8.32	33.97	2.94	26.44	160	0.52
148	9.22	33.73	4.12	191	250	7.54	34.04	2.29	26.61	144	0.59
167	8.96	33.79	3.57	183	300	7.05	34.08	1.94	26.71	134	0.66
196	8.40	33.95	3.15	163	400	6.20	34.23	0.89	26.94	112	0.79
221	7.98	34.01	2.42	152	500	5.46	34.28	0.68	27.08	99	0.90
275	7.26	34.05	2.21	139	600	4.94	34.31	0.57	27.16	92	1.00
359	6.58	34.17	1.11	121							
467	5.68	34.27	0.73	103							
604	4.92	34.31	0.56	91							
90.80	PAOLINA-T; November 19, 1958; 1330 GCT; 31°35.5'N, 121°09'W; sounding, 2300 fm; wind, 340°, force 4; weather, partly cloudy; sea, rough; wire angle, 16°.										
2	16.62	33.49	5.32	347	0	(16.62)	(33.49)	(5.32)	(24.47)	(347)	(0.00)
12	16.61	33.49	5.28	347	10	16.61	33.49	5.29	24.47	347	0.03
31	16.62	33.48	5.21	348	20	16.62	33.49	5.24	24.46	348	0.07
60	16.60	33.47	5.29	349	30	16.62	33.48	5.22	24.46	348	0.10
69	14.23	33.28	5.32	313	50	16.61	33.47	5.27	24.45	349	0.17
78	13.06	33.42	4.89	280	75	13.25	33.40	4.95	25.13	284	0.25
91	11.80	33.50	4.54	251	100	11.43	33.51	4.64	25.56	244	0.32
107	11.16	33.51	4.70	238	150	9.12	33.74	3.46	26.14	189	0.43
121	10.01	33.58	4.44	215	200	8.25	33.96	2.82	26.44	160	0.52
140	9.32	33.68	3.62	196	250	7.42	34.06	2.20	26.64	141	0.59
159	9.00	33.78	3.38	185	300	6.93	34.13	1.15	26.76	129	0.66
187	8.46	33.92	2.95	166	400	6.15	34.21	0.95	26.94	113	0.79
209	8.10	33.98	2.70	156	500	5.59	34.27	0.57	27.06	101	0.90
258	7.32	34.07	2.11	138							
337	6.66	34.16	1.33	123							
442	5.81	34.24	0.73	107							
579	5.32	34.32	0.38	95							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^{-5} cm/g	ΔD dyn. m

93.27

PAOLINA-T; November 17, 1958; 1951 GCT; 32°54.5'N, 117°21'W; sounding, 300 fm; wind, calm; weather, partly cloudy; sea, moderate; wire angle, 02°.

1	16.80	33.49	5.11	352	0	(16.80)	(33.49)	(5.11)	(24.42)	(352)	(0.00)
11	16.63	33.52	5.22	346	10	16.64	33.52	5.22	24.48	346	0.03
32	14.98	33.44	5.34	316	20	16.12	33.50	5.28	24.59	336	0.07
52	13.41	33.58	4.24	275	30	15.12	33.45	5.34	24.77	318	0.10
77	12.36	33.63	3.89	251	50	13.55	33.58	4.30	25.21	277	0.16
101	11.61	33.71	3.21	232	75	12.44	33.63	3.93	25.46	253	0.23
126	10.44	33.85	2.75	202	100	11.65	33.71	3.24	25.67	233	0.29
165	9.34	34.05	2.07	169	150	9.64	34.00	2.25	26.25	178	0.39
205	8.86	34.11	1.87	158	200	8.92	34.10	1.88	26.45	159	0.48

93.30

PAOLINA-T; November 17, 1958; 2210 GCT; 32°49'N, 117°30.5'W; sounding, 480 fm; wind, direction missing, force 1; weather, partly cloudy; sea, moderate; wire angle, 09°.

1	17.74	33.55	5.47	368	0	(17.74)	(33.55)	(5.47)	(24.25)	(368)	(0.00)
11	17.48	33.53	5.32	364	10	17.52	33.53	5.34	24.28	364	0.04
31	13.70	33.53	4.76	284	20	15.00	33.53	4.94	24.86	310	0.07
41	13.19	33.55	4.32	272	30	13.71	33.53	4.75	25.14	284	0.10
51	12.80	33.60	3.82	262	50	12.82	33.60	3.83	25.36	262	0.15
60	12.81	33.58	3.97	264	75	12.28	33.63	3.61	25.49	250	0.22
70	12.44	33.62	3.68	254	100	11.69	33.77	2.93	25.72	228	0.28
85	12.00	33.66	3.41	243	150	10.59	33.90	2.53	26.02	200	0.39
99	11.70	33.77	2.93	229	200	9.64	34.02	2.39	26.26	177	0.48
115	11.14	33.75	2.96	220	250	8.90	34.16	1.78	26.50	154	0.57
139	10.72	33.84	2.73	207	300	8.26	34.20	1.46	26.64	142	0.64
167	10.42	33.95	2.37	194	400	7.24	34.30	0.80	26.86	120	0.78
201	9.62	34.02	2.39	176	500	6.54	34.34	0.43	27.01	106	0.90
251	8.88	34.16	1.77	154							
331	7.86	34.22	1.26	134							
430	6.96	34.33	0.60	114							
560	5.74	34.34	0.33	98							

93.35

PAOLINA-T; November 18, 1958; 0210 GCT; 32°39.5'N, 117°51.5'W; sounding, 390 fm; wind, 360°, force 1; weather, partly cloudy; sea, moderate; wire angle, 05°.

0	17.79	33.51	6.26	372	0	17.79	33.51	6.26	24.20	372	0.00
10	17.78	33.54	6.18a)	370	10	17.78	33.54	6.18	24.23	370	0.04
30	17.50	33.53	6.12	364	20	17.65	33.54	6.13	24.26	367	0.07
40	14.45	33.34	6.40	312	30	17.50	33.53	6.12	24.29	364	0.11
50	13.58	33.41	5.76	290	50	13.58	33.41	5.76	25.07	290	0.18
61	13.01	33.52	5.33	272	75	12.26	33.55	4.73	25.43	255	0.24
71	12.38	33.53	4.90	259	100	11.20	33.63	4.28	25.70	230	0.31
85	11.98	33.68	3.97b)	241	150	10.38	33.90	2.76	26.06	196	0.41
100	11.20	33.63	4.28	230	200	9.46	34.06	2.37	26.32	171	0.51
114	10.84	33.71	3.90	219	250	8.64	34.15	2.12	26.53	152	0.59
138	10.64	33.84	3.15	206	300	8.00	34.20	1.74	26.67	138	0.66
167	9.99	33.98	2.47	184	400	6.90	34.28	0.89	26.88	118	0.80
201	9.44	34.06	2.37	170	500	6.19	34.35	0.47	27.04	103	0.91
251	8.62	34.15	2.11	151							
329	7.66	34.22	1.52	132							
429	6.65	34.29	0.67	113							
559	5.84	34.41	0.31	94							

a) Alternate value, 5.36 ml/L, not used in interpolation.
b) Alternate value, 4.17 ml/L, not used in interpolation.

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5811

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

93.40 PAOLINA-T; November 18, 1958; 0602 GCT; 32°30'N, 118°12.5'W; sounding, 900 fm; wind, 320°, force 3; weather, clear; sea, slight; wire angle, 05°.

2	17.52	33.48	5.31	368	0	(17.52)	(33.48)	(5.31)	(24.25)	(368)	(0.00)
12	17.52	33.51	5.26	366	10	17.52	33.51	5.27	24.27	366	0.04
32	17.52	33.50	5.41	367	20	17.52	33.50	5.32	24.27	366	0.07
42	16.00	33.37	5.54	343	30	17.52	33.50	5.40	24.26	367	0.11
53	13.95	33.30	5.52	306	50	14.06	33.30	5.52	24.88	308	0.18
63	13.49	33.34	5.20	294	75	12.75	33.38	4.94	25.22	276	0.25
72	12.87	33.37	4.97	280	100	11.14	33.45	4.56	25.57	242	0.32
87	11.78	33.40	4.77	257	150	9.53	33.85	3.04	26.16	187	0.42
102	11.00	33.46	4.50	240	200	8.94	34.03	2.14	26.39	164	0.51
116	10.00	33.57	3.92	215	250	8.08	34.16	1.69	26.62	143	0.59
141	9.64	33.78	3.20	194	300	7.52	34.20	1.25	26.74	131	0.66
171	9.26	33.96	2.78	175	400	6.90	34.28	0.73	26.89	117	0.79
205	8.88	34.04	2.08	163	500	6.30	34.34	0.47	27.01	105	0.91
253	8.02	34.16	1.67	142							
333	7.25	34.22	1.04	126							
432	6.76	34.31	0.61	113							
560	5.85	34.25	0.33	99							

93.50 PAOLINA-T; November 17, 1958; 1234 GCT; 32°09'N, 118°56.7'W; sounding, 840 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 07°.

2	17.34	33.69	5.06	348	0	(17.34)	(33.69)	(5.06)	(24.46)	(348)	(0.00)
12	17.34	33.68	5.66	349	10	17.34	33.68	5.66	24.45	349	0.04
32	17.33	33.71	4.66	347	20	17.34	33.70	5.10	24.46	348	0.07
47	13.66	33.57	4.68	280	30	17.33	33.71	4.68	24.47	347	0.10
58	11.88	33.58	3.84	246	50	13.02	33.57	4.41	25.31	268	0.17
68	10.77	33.64	3.43	222	75	10.33	33.64	3.27	25.86	215	0.23
78	10.31	33.66	3.21	214	100	9.49	33.79	2.78	26.12	190	0.28
97	9.59	33.75	2.80	195	150	8.74	33.97	2.02	26.38	166	0.37
111	9.23	33.86	2.75	182	200	8.25	34.10	1.75	26.56	149	0.45
126	9.02	33.89	2.49	176	250	7.74	34.19	1.50	26.70	135	0.52
150	8.74	33.97	2.02	166	300	7.20	34.23	1.24	26.81	125	0.59
179	8.46	34.05	1.87	156	400	6.41	34.28	0.53	26.95	111	0.71
218	8.04	34.14	1.63	143	500	5.92	34.32	0.43	27.05	102	0.82
271	7.48	34.21	1.41	131	600	5.50	34.36	0.42	27.13	95	0.92
355	6.70	34.26	0.68	116							
458	6.09	34.30	0.45	106							
603	5.47	34.36	0.42	94							

93.60 PAOLINA-T; November 18, 1958; 1839 GCT; 31°50.5'N, 119°34'W; sounding, 1220 fm; wind, 310°, force 4; weather, partly cloudy; sea, moderate; wire angle, 17°.

0	16.52	33.48	5.47	346	0	16.52	33.48	5.47	24.48	346	0.00
9	16.48	33.48	5.51	345	10	16.48	33.48	5.51	24.50	345	0.03
28	16.46	33.51	5.45	343	20	16.47	33.50	5.48	24.50	344	0.07
58	14.02	33.40	5.67	300	30	16.46	33.51	5.46	24.52	342	0.10
67	13.52	33.41	5.56	288	50	16.25	33.51	5.48	24.57	338	0.17
77	12.24	33.49	4.96	260	75	12.57	33.48	5.04	25.32	266	0.25
94	10.81	33.49	4.64	235	100	11.64	33.52	4.56	25.71	229	0.31
108	10.32	33.58	4.34	219	150	9.10	33.77	3.36	26.16	186	0.41
116	9.96	33.61	4.15	201	200	8.15	34.02	2.52	26.52	152	0.50
135	9.32	33.71	3.63	194	250	7.58	34.10	2.00	26.65	140	0.58
153	9.02	33.79	3.28	185	300	7.28	34.18	1.51	26.75	130	0.64
179	8.50	33.98	2.93	162	400	6.68	34.32	0.96	26.96	111	0.77
203	8.10	34.04	2.48	152	500	6.05	34.35	0.73	27.06	101	0.88
253	7.57	34.10	1.99	140							
333	7.10	34.23	1.21	124							
440	6.41	34.34	0.89	107							
579	5.56	34.36	0.48	95							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

93.70

PAOLINA-T; November 19, 1958; 0047 GCT; 31°30.5'N, 120°13'W; sounding, 2000 fm; wind, 360°, force 4; weather, cloudy; sea, moderate; wire angle, 05°.

2	17.05	33.52	6.13	355	0	(17.05)	(33.52)	(6.13)	(24.39)	(355)	(0.00)
12	17.04	33.51	6.19	355	10	17.04	33.51	6.19	24.39	355	0.04
32	16.97	33.51	6.10	354	20	17.02	33.51	6.17	24.39	355	0.07
63	16.92	33.51	6.13	352	30	16.98	33.51	6.11	24.40	354	0.11
72	15.54	33.46	6.34	326	50	16.95	33.51	6.12	24.41	353	0.18
83	14.45	33.46	6.34	304	75	15.25	33.46	6.35	24.76	320	0.26
98	12.81	33.49	5.87	270	100	12.68	33.48	5.80	25.31	268	0.34
112	11.68	33.46	5.26	252	150	9.98	33.69	3.88	25.96	206	0.46
128	10.68	33.51	4.89	231	200	9.08	33.98	2.40	26.33	170	0.55
148	10.00	33.67	3.98	208	250	8.24	34.07	2.34	26.53	152	0.63
167	9.69	33.82	3.16	192	300	7.66	34.12	1.94	26.65	140	0.71
197	9.17	33.97	2.40	172	400	6.68	34.20	1.00	26.86	120	0.85
221	8.62	34.04	2.40	159	500	5.80	34.24	0.67	27.00	107	0.96
274	7.94	34.09	2.20	145	600	5.37	34.31	0.46	27.12	95	1.07
358	7.06	34.19	1.25	126							
466	6.04	34.22	0.76	111							
605	5.23	34.32	0.45	94							

93.80

PAOLINA-T; November 19, 1958; 0706 GCT; 31°06'N, 120°51'W; sounding, 2000 fm; wind, 020°, force 5; weather, partly cloudy; sea, rough; wire angle, 06°.

2	17.12	33.46	5.31	361	0	(17.12)	(33.46)	(5.31)	(24.32)	(361)	(0.00)
11	17.13	33.45	5.44	361	10	17.13	33.45	5.43	24.32	361	0.04
30	17.12	33.46	5.49	361	20	17.12	33.46	5.46	24.32	361	0.07
61	17.12	33.46	5.37	361	30	17.12	33.46	5.49	24.32	361	0.11
70	15.74	33.44	5.47	332	50	17.12	33.46	5.40	24.32	361	0.18
80	14.74	33.38	5.76	315	75	15.17	33.40	5.66	24.74	322	0.26
94	13.55	33.48	5.21	284	100	12.98	33.48	4.96	25.22	274	0.34
109	12.04	33.46	4.66	258	150	9.61	33.59	4.07	25.94	208	0.46
132	10.27	33.53	4.57	222	200	8.60	33.91	2.77	26.36	168	0.56
163	9.20	33.66	3.67	196	250	7.95	34.01	2.30	26.53	151	0.64
191	8.70	33.86	2.99	174	300	7.26	34.07	1.94	26.68	138	0.71
215	8.40	33.95	2.58	162	400	6.28	34.18	0.98	26.89	117	0.85
270	7.64	34.04	2.14	145	500	5.66	34.24	0.54	27.02	106	0.96
305	7.20	34.07	1.90	137	600	5.20	34.31	0.42	27.13	94	1.07
353	6.62	34.14	1.31	124							
461	5.88	34.21	0.69	110							
600	5.20	34.31	0.42	94							

97.32

PAOLINA-T; November 13, 1958; 0225 GCT;[a] 32°12'N, 117°16'W; sounding, 800 fm; wind, 270°, force 3; weather, partly cloudy; sea, rough; wire angle, 05°.

492	6.31	34.42	0.31	99
502	6.25	34.35	0.14	104
513	6.16	34.40	0.25	99
523	6.04	34.38	0.34	99
532	6.02	34.40	0.23	98
543	5.95	34.38	0.27	98
553	5.87	34.38	0.21	97
563	5.84	34.38	0.28	96
572	5.78	34.40	0.28	94
582	5.72	34.38	0.42	95
592	5.65	34.38	0.26	94
602	5.58	34.42	0.24	90
612	5.52	34.40	0.23	91

a) Test cast.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

97.60 PAOLINA-T; November 14, 1958; 1037 GCT; 31°17'N, 119°06'W; sounding, 1900 fm; wind, 320°, force 4; weather, clear; sea, very rough; wire angle, 05°.

2	17.75	33.43	5.52	377	0	(17.75)	(33.43)	(5.52)	(24.15)	(377)	(0.00)
12	17.73	33.46	5.47	375	10	17.74	33.46	5.48	24.18	375	0.04
32	17.76	33.44	5.74	376	20	17.73	33.45	5.65	24.17	376	0.08
46	16.09	33.41	6.07	342	30	17.75	33.44	5.74	24.16	376	0.11
56	15.36	33.39	6.12	327	50	15.89	33.40	6.10	24.59	336	0.18
66	14.82	33.40	5.93	316	75	14.50	33.48	5.87	24.93	304	0.26
76	14.49	33.48	5.86	303	100	11.88	33.54	5.12	25.50	249	0.34
96	12.37	33.54	5.13	258	150	9.72	33.67	4.11	25.98	203	0.45
110	10.92	33.55	5.03	232	200	8.55	33.97	2.63	26.41	163	0.54
125	10.17	33.59	4.48	216	250	7.91	34.12	1.69	26.63	142	0.62
150	9.72	33.67	4.11	203	300	7.45	34.20	1.21	26.74	131	0.69
178	8.85	33.86	3.30	176	400	6.82	34.29	0.65	26.91	116	0.82
218	8.30	34.04	2.22	154	500	6.26	34.36	0.34	27.03	104	0.93
271	7.67	34.16	1.47	137	600	5.85	34.38	0.28	27.10	97	1.04
353	7.08	34.25	0.87	122							
456	6.49	34.34	0.41	108							
602	5.82	34.38	0.28	96							

100.60 PAOLINA-T; November 14, 1958; 0420 GCT; 30°42'N, 118°43.5'W; sounding, 1500+ fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 11°.

2	19.46	33.67	4.78	400	0	(19.46)	(33.67)	(4.78)	(23.92)	(400)	(0.00)
12	19.47	33.68	4.90	400	10	19.47	33.68	4.88	23.92	400	0.04
32	19.48	33.68	4.86	400	20	19.48	33.68	4.88	23.92	400	0.08
46	18.69	33.58	4.99	389	30	19.48	33.68	4.87	23.92	400	0.12
57	16.00	33.55	5.32	330	50	16.90	33.56	5.22	24.46	348	0.19
67	15.59	33.53	5.54	322	75	14.56	33.48	5.25	24.92	304	0.28
76	14.47	33.48	5.23	303	100	12.42	33.58	4.29	25.42	256	0.35
95	12.77	33.55	4.49	264	150	10.72	33.86	2.70	25.96	206	0.46
109	11.89	33.64	3.95	242	200	9.63	34.01	2.33	26.27	176	0.56
123	11.27	33.71	3.70	226	250	8.89	34.14	1.88	26.48	156	0.65
146	10.80	33.84	2.78	208	300	8.40	34.20	1.52	26.61	144	0.72
175	10.24	33.95	2.36	191	400	7.36	34.28	0.92	26.83	123	0.86
213	9.30	34.05	2.31	168	500	6.55	34.33	0.56	26.98	109	0.98
265	8.76	34.17	1.72	151	600	(5.82)	(34.33)	(0.35)	(27.07)	(100)	(1.10)
348	7.86	34.23	1.21	134							
452	6.84	34.33	0.67	113							
597	5.86	34.33	0.37	100							

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
82.47-P	XI-21	2200	34°14.5'	119°58.5'	300	270°	3	partly cloudy	slight	16.54	33.58
83.40-P	21	1632	34°13.5'	119°22.0'	11	050°	2	partly cloudy	slight	15.98	33.55
83.51-P	22	2219	33°52.0'	120°07.5'	600	320°	4	missing	rough	16.24	33.55
83.55-P	22	1857	33°47.0'	120°24.5'	600	300°	5	cloudy	rough	16.10	33.53
87.35-P	21	1014	33°50.5'	118°37.0'	140	140°	2	partly cloudy	slight	16.83	33.51
87.45-P	23	1619	33°30.0'	119°18.5'	135	-	1	overcast	moderate	16.82	33.54
87.50-P	23	1304	33°20.0'	119°39.5'	41	320°	3	fog	moderate	15.36	33.47
87.55-P	23	0833	33°12.0'	120°02.0'	600	290°	4	clear	very rough	14.63	33.48
97.30-P	15	0406	32°15.5'	117°09.0'	33	320°	4	partly cloudy	moderate	19.24	33.58
97.32-P	15	0241	32°11.5'	117°16.5'	700+	320°	4	overcast	moderate	19.50	33.64
97.35-P	15	0040	32°06.0'	117°29.0'	650	320°	4	cloudy	rough	18.98	33.57
97.40-P	14	2134	31°54.0'	117°48.5'	380	320°	3	partly cloudy	very rough	18.15	33.41
97.50-P	14	1615	31°40.0'	118°25.5'	1320	320°	5	cloudy	very rough	17.87	33.43
100.29-P	13	0818	31°42.0'	116°43.5'	125	040°	3	clear	moderate	18.28	33.60
100.30-P	13	0930	31°41.5'	116°46.5'	240	320°	3	clear	moderate	18.46	33.68
100.35-P	13	1240	31°31.5'	117°05.5'	600	320°	4	clear	rough	19.64	33.61
100.40-P	13	1643	31°22.0'	117°23.5'	1000	320°	4	partly cloudy	very rough	19.60	33.69
100.50-P	13	2233	31°01.0'	118°06.0'	950	240°	4	cloudy	rough	18.50	33.44

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
80.51	ORCA; December 9, 1958; 1145 GCT; 34°26.5'N, 120°31.5'W; sounding, 71 fm; wind, 320°, force 3; weather, clear; sea, rough; wire angle, 05°.										
1	15.94	33.55	5.51	328	0	(15.94)	(33.55)	(5.51)	(24.67)	(328)	(0.00)
11	15.94	33.57	5.47	327	10	15.94	33.57	5.48	24.68	327	0.03
31	15.70	33.54	5.46	324	20	15.92	33.56	5.47	24.69	326	0.06
51	14.40	33.48	4.93	301	30	15.71	33.54	5.46	24.71	324	0.10
					50	14.43	33.48	4.97	24.94	302	0.16
80.55	ORCA; December 9, 1958; 1439 GCT; 34°17'N, 120°48'W; sounding, 414 fm; wind, 320°, force 4; weather, cloudy; sea, very rough; wire angle, 32°.										
2	15.60	33.53	5.60	322	0	(15.60)	(33.53)	(5.60)	(24.74)	(322)	(0.00)
12	15.60	33.53	5.53	322	10	15.60	33.53	5.54	24.74	322	0.03
33	14.66	33.52	5.40	304	20	15.53	33.53	5.51	24.75	321	0.06
42	14.08	33.48	5.06	295	30	15.24	33.53	5.48	24.81	315	0.10
55	12.89	33.51	4.91	270	50	13.45	33.50	4.96	25.17	281	0.16
63	11.98	33.53	4.54	251	75	11.56	33.59	4.16	25.59	240	0.22
71	11.68	33.58	4.23	243	100	10.80	33.66	3.72	25.79	222	0.28
88	11.10	33.61	3.97	230	150	9.58	33.87	2.83	26.16	186	0.38
103	10.68	33.68	3.62	218	200	8.94	33.94	2.37	26.32	171	0.47
116	10.32	33.75	3.30	207	250	8.63	34.03	2.26	26.44	160	0.56
133	10.02	33.78	3.13	201	300	8.18	34.18	1.82	26.63	142	0.64
165	9.28	33.91	2.64	179	400	7.02	34.25	0.86	26.84	122	0.77
196	8.98	33.94	2.38	172	500	6.18					
245	8.64	34.03	2.27	160							
320	7.99	34.21	1.61	137							
421	6.80	34.25	0.66	118							
557	5.66	34.05r	1.61r								
80.60	ORCA; December 9, 1958; 1847 GCT; 34°06'N, 121°08'W; sounding, 1250 fm; wind, 320°, force 5; weather, partly cloudy; sea, high; wire angle, 35°.										
2a)	15.17	33.49		316	0	(15.17)	(33.49)		(24.80)	(316)	(0.00)
10	15.18	33.50		316	10	15.18	33.50		24.80	316	0.03
28	13.54	33.40		290	20	13.88	33.42		25.02	295	0.06
34	13.16	33.45		279	30	13.42	33.41		25.10	287	0.09
41	11.54	33.31		260	50	11.44	33.58		25.61	239	0.14
47	10.84	33.36		244							
53	11.06	33.55		234							
66	10.64	33.58		225							
80.70	ORCA; December 10, 1958; 0040, 0053 GCT; 33°47.5'N, 121°47'W; sounding, 1800 fm; wind, 320°, force 5; weather, cloudy; sea, high; wire angle, 31°, 34°.										
4	16.37	33.30		356	0	16.4	(33.30)		(24.38)	(356)	(0.00)
13	16.32	33.31		354	10	16.33	33.31		24.39	354	0.04
					20	16.25	33.31		24.42	352	0.07
29b)	15.86	33.30		345	30	15.85	33.30		24.50	345	0.10
38	15.80	33.30		343	50	15.65	33.37		24.60	336	0.17
51	15.63	33.37		335	75	12.00	33.20		25.21	277	0.25
60	15.11	33.31		328	100	9.80	33.35		25.72	228	0.31
69	13.01	33.13		300	150	8.68	33.75		26.21	181	0.42
80	11.36	33.24		262	200	8.10	34.00		26.49	155	0.50
96	10.21	33.31		238	250	7.48	34.08		26.65	140	0.58
106	9.40	33.42		217	300	6.88	34.11		26.76	130	0.65
122	9.00	33.57		200	400	6.02	34.13		26.89	117	0.78
148	8.69	33.73		183	500	(5.39)	(34.14)		(26.97)	(109)	(0.89)
174	8.42	33.92		166							
215	7.89	34.03		149							
276	7.19	34.10		134							
364	6.24	34.13		120							
485	5.46	34.14		110							

a) Depths adjusted to agree with bathythermograph data.
b) Possible posttrip beginning at 29 meters.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T_3}^{-5}$ 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T_3}^{-5}$ 10 cm/g	ΔD dyn. m

80.80

ORCA; December 10, 1958; 0715, 0730 GCT; 33°27.5'N, 112°30'W; sounding, 2000 fm; wind, 320°, force 5; weather, clear; sea, high; wire angle, 18°, 17°.

1	16.50	33.24		363	0	(16.50)	(33.24)		(24.30)	(363)	(0.00)
10	16.50	33.24		363	10	16.50	33.24		24.30	363	0.04
					20	16.50	33.23		24.29	364	0.07
36	16.48	33.22		365	30	16.49	33.22		24.29	364	0.11
63	15.75	33.24		347	50	16.27	33.22		24.34	360	0.18
72	15.60	-			75	15.55	33.30		24.57	338	0.27
86	15.30	33.35		329	100	12.60	33.15		25.06	291	0.35
95	13.48	33.15		308	150	9.32	33.65		26.04	198	0.47
114	11.24	33.22		262	200	8.57	33.88		26.34	170	0.56
128	10.25	33.42		231	250	7.80	34.00		26.55	149	0.65
146	9.40	33.61		203	300	7.19	34.08		26.69	136	0.72
170	9.08	33.74		189	400	6.34	34.17		26.88	118	0.85
197	8.60	33.86		172	500	5.73	34.26		27.03	104	0.97
225	8.16	33.96		158	600	5.20	34.33		27.14	93	1.08
280	7.38	34.05		141							
364	6.60	34.14		124							
472	5.88	34.23		108							
617	5.08	34.34		91							

83.60

ORCA; December 8, 1958; 1511 GCT; 33°33.5'N, 120°46'W; sounding, 700 fm; wind, 320°, force 4; weather, partly cloudy; sea, very rough; wire angle, 30°.

2	15.37	33.49	5.75	321	0	(15.37)	(33.49)	(5.75)	(24.75)	(321)	(0.00)
10	15.37	33.50	5.75	320	10	15.37	33.50	5.75	24.76	320	0.03
26a)	15.32	33.53	6.09	316	20	15.35	33.52	5.98	24.78	318	0.06
39	14.10	33.40	5.88	301	30	14.58	33.45	5.99	24.89	307	0.10
47	14.00	33.48	5.44	293	50	13.78	33.49	5.34	25.08	288	0.15
54	13.42	33.49	5.24	281	75	11.10	33.57	4.41	25.67	233	0.22
62	12.33	33.52	4.79	259	100	9.99	33.69	3.72	25.96	206	0.28
79	10.86	33.58	4.33	228	150	8.75	33.93	2.76	26.34	169	0.37
91	10.18	33.60	4.08	216	200	8.18	34.04	2.26	26.52	153	0.45
103	9.92	33.73	3.59	202	250	7.79	34.11	1.86	26.64	141	0.53
121	9.20	33.79	3.41	186	300	7.28	34.13	1.57	26.72	133	0.60
139	8.92	33.89	2.91	175	400	6.64	34.18	0.98	26.85	121	0.73
164	8.58	33.96	2.62	164	500	(6.10)	(34.28)		(27.00)	(107)	(0.85)
201	8.17	34.04	2.25	152							
260	7.67	34.12	1.82	140							
343	6.93	34.14	1.27	128							
466	6.27	34.25	0.67	112							

87.40

ORCA; December 7, 1958; 2143 GCT; 33°39'N, 118°57'W; sounding, 260 fm; wind, 290°, force 3; weather, fog; sea, moderate; wire angle, 10°.

1	17.12	33.53	5.25b)	356	0	(17.12)	(33.53)		(24.38)	(356)	(0.00)
11	17.04	33.53	6.00	354	10	17.05	33.53		24.39	354	0.04
25	16.98	33.52	4.82	354	20	17.00	33.52		24.40	354	0.07
35	16.09	33.46	4.45	338	30	16.97	33.52		24.41	353	0.11
40	15.76	33.43	4.06	333	50	13.84	33.41		25.01	296	0.17
45	14.86	33.41	5.10	316	75	12.29	33.56		25.44	255	0.24
50	13.84	33.41	5.76	296	100	10.61	33.58		25.76	224	0.30
55	13.04	33.40	4.87	281	150	9.64	33.88		26.16	187	0.40
60	12.64	33.42	3.82	272	200	8.97	34.03		26.39	165	0.49
65	12.56	33.52	2.94	263							
70	12.47	33.55	3.33	259							
75	12.29	33.56	3.16	255							
85	11.78	33.66	3.20	238							
101	10.58	33.58	3.63	223							
125	10.22	33.81	2.47	201							
150	9.64	33.88	2.85	187							
205	8.92	34.05	2.20	163							

a) Possible posttrip beginning at 26 meters.
b) Oxygen values appear to be erratic; therefore no interpolated values are given.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
87.60	ORCA; December 8, 1958; 0856 GCT; 33°00'N, 120°21.5'W; sounding, 400 fm; wind, 310°, force 5; weather, clear; sea, very rough; wire angle, 18°.										
2	16.52	33.52	4.54	343	0	(16.52)	(33.52)	(4.54)	(24.51)	(343)	(0.00)
13	16.55	33.49	4.89	346	10	16.55	33.49	4.80	24.49	346	0.03
36	15.92	33.48	4.83	333	20	16.42	33.49	4.89	24.51	343	0.07
65	12.42	33.42	4.85	268	30	16.13	33.48	4.86	24.58	337	0.10
75	11.58	33.48	4.53	248	50	13.60	33.44	4.85	25.09	288	0.16
89	10.78	33.49	4.34	233	75	11.58	33.48	4.53	25.51	248	0.23
99	10.46	33.53	3.93	226	100	10.45	33.53	3.92	25.75	225	0.29
118	9.54	33.69	3.39	199	150	9.03	33.84	3.06	26.22	181	0.39
132	9.20	33.78	3.04	187	200	8.27	34.06	2.05	26.52	152	0.48
151	9.03	33.84	3.06	181	250	7.94	34.16	1.58	26.65	140	0.55
175	8.69	33.96	2.52	166	300	7.58	34.20	1.46	26.73	132	0.62
203	8.21	34.07	2.00	151	400	6.70	34.26	0.79	26.90	117	0.75
232	8.02	34.12	1.65	145	500	6.20	34.33	0.55	27.02	105	0.87
289	7.66	34.19	1.52	135	600	5.81	34.36	0.44	27.09	98	0.98
375	6.85	34.23	0.92	121							
488	6.24	34.32	0.58	106							
635	5.64	34.36	0.41	96							
90.28	ORCA; December 11, 1958; 1222 GCT; 33°28.5'N, 117°46.5'W; sounding, 240 fm; wind, calm; weather, clear; sea, smooth; wire angle, 00°.										
0	16.92	33.55	5.58	350	0	16.92	33.55	5.58	24.44	350	0.00
10	16.94	33.55	5.46	350	10	16.94	33.55	5.46	24.44	350	0.04
30	15.34	33.43	5.23	324	20	16.47	33.51	5.37	24.53	342	0.07
50	14.10	33.46	4.87	297	30	15.34	33.43	5.23	24.71	324	0.10
75	12.86	33.61	3.71	262	50	14.10	33.46	4.87	25.00	297	0.16
100	12.35	33.80	3.60	238	75	12.86	33.61	3.71	25.36	262	0.23
125	11.43	33.75	3.27	226	100	12.35	33.80	3.60	25.61	238	0.30
155	10.34	33.87	2.76	198	150	10.52	33.85	2.80	25.99	203	0.41
90.30	ORCA; December 11, 1958; 1045 GCT; 33°25'N, 117°53.5'W; sounding, 340 fm; wind, 070°, force 2; weather, fog; sea, slight; wire angle, 00°.										
1	16.92	33.56	5.68	349	0	(16.92)	(33.56)	(5.68)	(24.45)	(349)	(0.00)
11	16.92	33.54	5.25	350	10	16.92	33.54	5.26	24.44	350	0.04
32	16.80	33.57	5.39	345	20	16.87	33.54	5.26	24.44	350	0.07
42	15.66	33.49	4.77	327	30	16.81	33.57	5.37	24.48	346	0.10
52	14.76	33.45	5.54	310	50	14.92	33.45	5.44	24.82	314	0.17
62	13.92	33.49	4.80	291	75	13.17	33.58	4.74	25.27	271	0.24
72	13.41	33.58	4.75	275	100	11.70	33.80	3.22	25.72	228	0.31
87	12.27	33.55	4.62	256	150	9.80	33.79	3.32	26.06	196	0.42
101	11.75	33.80	3.21	228	200	9.42	34.08	1.98	26.34	169	0.51
116	11.22	33.80	2.91	218	250	8.78	34.14	1.85	26.50	154	0.59
141	9.82	33.71	3.56	202	300	8.18	34.19	1.56	26.64	141	0.67
170	9.78	33.98	2.48	182	400	7.33	34.31	0.90	26.86	120	0.80
205	9.37	34.09	1.96	167	500	6.46					
254	8.72	34.14	1.85	153							
332	7.87	34.23	1.35	134							
432	7.08	34.34	0.71	116							
559	5.86	-	-								

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

90.37

ORCA; December 7, 1958; 1246, 1330 GCT; 33°09'N, 118°25'W; sounding, 600 fm; wind, 270°, force 2; weather, overcast; sea, slight; wire angle, 03°, 03°.

1	17.00	33.57	5.32	350	0	(17.00)	(33.57)	(5.32)	(24.44)	(350)	(0.00)
11	16.99	33.55	5.65	351	10	16.98	33.55	5.60	24.43	351	0.04
31	16.37	33.54	5.46	339	20	16.97	33.55	5.67	24.43	350	0.07
41	15.57	33.49	5.00	325	30	16.81	33.55	5.64	24.47	348	0.10
51	14.60	33.48	5.26	305	50	14.75	33.48	5.23	24.86	308	0.17
60	13.96	33.49	4.37u	292	75	12.39	33.54	4.75	25.41	258	0.24
71	12.86	33.54	4.75	267	100	11.48	33.65	3.77	25.65	234	0.30
86	12.04	33.58	4.04	249	150	10.30	33.87	2.83	26.04	198	0.41
102	11.39	33.65	3.76	233	200	9.59	34.04	2.37	26.29	174	0.51
117	11.10	33.75	3.37	220	250	8.56	34.13	1.93	26.54	151	0.59
					300	8.09	34.17	1.69	26.64	142	0.67
137	10.60	33.84	2.98	205	400	7.47	34.25	1.04	26.78	127	0.81
167	9.94	33.89	2.67	190	500	6.67	34.35	0.63	26.98	109	0.93
202	9.57	34.04	2.23	173							
250	8.56	34.13	1.93	151							
329	7.90	34.18	1.54	138							
429	7.28	34.29	0.82	122							
557	5.96	34.40	0.51	97							

90.45

ORCA; December 7, 1958; 0757 GCT; 32°51.5'N, 118°53.5'W; sounding, 350 fm; wind, 300°, force 2; weather, partly cloudy; sea, moderate; wire angle, 03°.

1	16.83	33.47	5.45	353	0	(16.83)	(33.47)	(5.45)	(24.40)	(353)	(0.00)
11	16.83	33.48	5.60	353	10	16.83	33.48	5.57	24.40	353	0.04
31	16.83	33.46	5.43	354	20	16.83	33.47	5.52	24.40	354	0.07
41	16.82	33.49	5.41	352	30	16.83	33.46	5.46	24.39	354	0.11
51	15.95	33.46	5.63	335	50	16.10	33.46	5.60	24.57	338	0.18
61	15.14	33.46	5.61	318	75	13.40	33.47	5.28	25.15	282	0.25
71	13.85	33.46	5.32	292	100	11.53	33.49	4.80	25.52	248	0.32
86	12.62	33.49	5.16	266	150	9.21	33.74	3.60	26.12	190	0.43
101	11.45	33.49	4.78	245	200	8.59	34.01	2.23	26.43	160	0.52
116	10.32	33.53	4.54	223	250	8.20	34.13	1.92	26.59	146	0.60
141	9.38	33.70	3.75	195	300	7.65	34.19	1.50	26.71	134	0.67
171	9.00	33.83	3.25	181	400	6.93	34.26	0.80	26.87	119	0.80
205	8.53	34.02	2.19	159	500	6.30	34.32	0.49	27.02	106	0.92
254	8.19	34.14	1.90	145							
335	7.29	34.22	1.20	127							
433	6.74	34.28	0.69	115							
563	5.86	34.36	0.37	99							

90.50

ORCA; December 7, 1958; 0450 GCT; 32°40.5'N, 119°13.5'W; sounding, 108 fm; wind, 320°, force 4; weather, overcast; sea, slight; wire angle, 08°.

1	16.68	33.49	5.51	349	0	(16.68)	(33.49)	(5.51)	(24.45)	(349)	(0.00)
11	16.65	33.49	5.35	347	10	16.66	33.49	5.40	24.46	348	0.03
31	16.41	33.48	5.34	344	20	16.60	33.49	5.36	24.47	347	0.07
50	14.10	33.40	5.14	301	30	16.44	33.48	5.36	24.50	344	0.10
75	12.08	33.44	4.73	260	50	14.10	33.40	5.14	24.96	301	0.17
100	10.02	33.61	3.57	213	75	12.08	33.44	4.73	25.38	260	0.24
125	9.63	33.69	3.54	201	100	10.02	33.61	3.57	25.88	213	0.30
155	9.26	33.72	3.51	193	150	9.35	33.71	3.53	26.08	194	0.40

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{3} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{3} cm/g	ΔD dyn. m
90.55	ORCA; December 7, 1958; 0215 GCT; 32°32.5'N, 119°31'W; sounding, 300 fm; wind, 300°, force 2; weather, overcast; sea, slight; wire angle, 06°.										
3	16.71	33.51	5.43	348	0	(16.71)	(33.51)	(5.43)	(24.46)	(348)	(0.00)
13	16.70	33.54	5.46	345	10	16.71	33.54	5.46	24.48	346	0.03
33	16.58	33.57	5.40	341	20	16.71	33.54	5.44	24.49	346	0.07
53	13.41	33.42	5.16	286	30	16.70	33.55	5.43	24.49	345	0.10
77	11.00	33.50	4.36	237	50	14.10	33.45	5.33	24.99	298	0.17
103	10.26	33.56	3.89	220	75	11.06	33.50	4.40	25.63	238	0.23
128	9.52	33.70	3.48	198	100	10.37	33.55	3.94	25.79	222	0.29
166	8.60	34.02	2.30	161	150	8.93	33.90	2.77	26.29	174	0.40
206	8.08	34.10	1.84	147	200	8.18	34.09	1.89	26.57	148	0.48
256	7.59	34.14	1.39	137	250	7.63	34.15	1.42	26.67	138	0.55
306	7.38	34.22	1.12	128	300	7.40	34.22	1.16	26.77	129	0.62
410	6.46	34.27	0.58	113	400	6.59	34.26	0.66	26.92	115	0.74
90.60	ORCA; December 6, 1958; 2246 GCT; 32°23.5'N, 119°55'W; sounding, 450 fm; wind, 310°, force 2; weather, overcast; sea, moderate; wire angle, 12°.										
2	16.28	33.50	5.42	340	0	(16.28)	(33.50)	(5.42)	(24.55)	(340)	(0.00)
12	16.24	33.53	5.49	337	10	16.26	33.52	5.47	24.58	338	0.03
31	15.62	33.48	5.51	327	20	16.10	33.52	5.52	24.61	334	0.07
41	15.11	33.47	5.35	316	30	15.67	33.49	5.53	24.68	327	0.10
51	14.10	33.40	5.53	301	50	14.22	33.41	5.51	24.94	303	0.16
61	13.25	33.42	5.40	283	75	12.61	33.42	5.40	25.27	271	0.24
70	12.85	33.42	5.39	276	100	10.50	33.51	4.91	25.72	228	0.30
85	11.98	33.44	5.48	258	150	9.07	33.81	4.02	26.20	183	0.40
100	10.50	33.51	4.91	228	200	8.35	34.02	2.56	26.47	157	0.49
114	9.83	33.60	4.80	210	250	7.79	34.11	2.01	26.64	142	0.56
138	9.34	33.73	4.54	193	300	7.30	34.17	1.53	26.75	130	0.64
167	8.71	33.92	3.28	169	400	6.72	34.27	0.90	26.91	116	0.76
202	8.34	34.02	2.55	157	500	6.19	34.35	0.58	27.05	103	0.88
249	7.80	34.11	2.02	142							
325	7.10	34.20	1.35	126							
422	6.62	34.29	0.85	113							
549	5.88	34.38	0.46	97							
90.70	ORCA; December 6, 1958; 1747 GCT; 32°04'N, 120°33.5'W; sounding, 2000 fm; wind, 300°, force 4; weather, overcast; sea, moderate; wire angle, 04°.										
1	16.99	33.50	5.19	355	0	(16.99)	(33.50)	(5.19)	(24.38)	(355)	(0.00)
11	16.96	33.51	5.21	354	10	16.97	33.51	5.21	24.40	354	0.04
31	16.94	33.49	5.33	354	20	16.96	33.50	5.26	24.40	354	0.07
41	16.86	33.48	5.51	354	30	16.95	33.49	5.32	24.40	354	0.11
51	16.50	33.48	5.24	346	50	16.56	33.48	5.28	24.47	347	0.18
61	16.18	33.51	5.21	336	75	14.80	33.45	4.88	24.85	311	0.26
71	15.32	33.43	4.86	324	100	12.50	33.49	4.36	25.35	264	0.33
86	14.24	33.48	4.93	298	150	9.55	33.60	3.17	25.96	206	0.45
102	12.22	33.49	4.27	259	200	8.50	33.92	2.16	26.37	166	0.54
116	11.22	33.48	3.77	242	250	7.90	34.03	1.69	26.56	149	0.63
141	9.90	33.55	3.35	215	300	7.40	34.09	1.30	26.67	138	0.70
171	8.92	33.78	2.57	183	400	6.48	34.18	0.77	26.86	120	0.84
206	8.40	33.95	2.09	163	500	5.83	34.25	0.53	27.01	106	0.95
256	7.82	34.04	1.63	148							
335	7.08	34.13	1.03	131							
434	6.20	34.20	0.67	114							
563	5.61	34.30	0.42	100							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m

90.80

ORCA; December 6, 1958; 1212 GCT; 31°45'N, 121°14'W; sounding, 2000 fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 02°.

1	16.54	33.41	5.03	351	0	(16.54)	(33.41)	(5.03)	(24.43)	(351)	(0.00)
11	16.52	33.39	4.40	352	10	16.50	33.39	4.45	24.42	352	0.04
31	16.48	33.42	4.36	350	20	16.50	33.41	4.36	24.43	351	0.07
56	15.80	33.40	4.93	336	30	16.48	33.42	4.36	24.44	350	0.10
66	15.42	33.43	4.54	326	50	16.06	33.41	4.78	24.54	341	0.17
76	13.74	33.40	4.53	294	75	13.80	33.40	4.53	25.02	295	0.25
86	13.12	33.42	4.22	281	100	12.06	33.44	4.16	25.38	260	0.33
101	12.00	33.44	4.16	259	150	9.10	33.76	2.57	26.16	187	0.44
116	10.46	33.54	3.51	225	200	8.28	34.02	2.02	26.49	155	0.52
135	9.74	33.69	2.81	202	250	7.48	34.05	1.90	26.63	142	0.60
155	8.98	33.78	2.57	184	300	6.80	34.09	1.28	26.76	130	0.67
181	8.62	33.89	2.56	170	400	6.22	34.20	0.67	26.91	115	0.80
205	8.18	34.03	1.95	153	500	5.74	34.30	0.32	27.06	101	0.91
255	7.40	34.05	1.89	141							
334	6.52	34.13	0.88	123							
433	6.06	34.24	0.55	110							
562	5.40	34.34	0.12	94							

93.27

ORCA; December 4, 1958; 2059 GCT; 32°54.5'N, 117°22'W; sounding, 300 fm; wind, 200°, force 4; weather, cloudy; sea, smooth; wire angle, 13°.

2	17.44	33.55	5.57	362	0	(17.44)	(33.55)	(5.57)	(24.31)	(362)	(0.00)
11	17.39	33.57	5.44	359	10	17.39	33.57	5.45	24.34	360	0.04
31	17.36	33.53	5.54	361	20	17.37	33.55	5.52	24.33	360	0.07
					30	17.36	33.53	5.54	24.32	361	0.11

93.30

ORCA; December 4, 1958; 2307 GCT; 32°50'N, 117°31'W; sounding, 450 fm; wind, 200°, force 2; weather, overcast; sea, rough; wire angle, 07°.

2	17.24	33.51	5.48	360	0	(17.24)	(33.51)	(5.48)	(24.33)	(360)	(0.00)
12	17.22	33.53	5.42	358	10	17.23	33.53	5.44	24.34	359	0.04
32	15.44	33.39	5.80	330	20	16.90	33.51	5.47	24.41	353	0.07
47	14.25	33.50	4.91	297	30	15.55	33.39	5.78	24.63	332	0.10
57	13.98	33.57	4.46	286	50	14.17	33.53	5.64	25.04	293	0.17
66	13.78	33.58	4.46	282	75	13.70	33.61	4.16	25.20	278	0.24
76	13.68	33.62	4.09	277	100	12.78	33.68	3.70	25.44	255	0.31
96	13.00	33.66	3.80	261	150	10.75	33.90	2.67	25.99	203	0.42
110	12.20	33.73	3.38	241	200	9.44	33.96	2.53	26.25	178	0.52
125	11.81	33.77	3.14	231	250	8.78	34.12	1.90	26.49	155	0.60
150	10.75	33.90	2.67	203	300	8.17	34.16	1.59	26.62	143	0.68
178	9.66	33.85	2.84	189	400	7.37	34.25	1.00	26.80	126	0.82
217	9.32	34.07	2.18	167	500	6.60	34.33	0.58	26.97	110	0.95
272	8.43	34.14	1.76	149	600	5.90	34.36	0.40	27.08	99	1.06
356	7.72	34.20	1.29	134							
461	6.86	34.31	0.66	115							
606	5.85	34.36	0.38	98							

93.35

ORCA; December 5, 1958; 0228 GCT; 32°39.5'N, 117°51.5'W; sounding, 300 fm; wind, 220°, force 2; weather, overcast; sea, rough; wire angle, 06°.

2	17.44	33.56	5.56	361	0	(17.44)	(33.56)	(5.56)	(24.32)	(361)	(0.00)
11	17.42	33.58	5.56	359	10	17.43	33.58	5.56	24.34	360	0.04
32	17.40	33.53	5.53	362	20	17.42	33.57	5.55	24.34	359	0.07
52	14.56	33.42	5.74	309	30	17.40	33.53	5.53	24.32	362	0.11
76	12.60	33.51	4.40	264	50	14.70	33.42	5.75	24.85	311	0.18
102	11.67	33.63	3.84	239	75	12.68	33.51	4.45	25.32	266	0.25
126	10.83	33.77	3.02	215	100	11.78	33.63	3.90	25.59	241	0.31
165	10.02	33.89	2.67	192	150	10.38	33.85	2.76	26.02	200	0.42
204	9.13	34.04	2.24	167	200	9.20	34.03	2.29	26.34	169	0.52
253	8.32	34.14	1.83	147	250	8.39	34.13	1.86	26.56	148	0.60
302	7.80	34.19	1.37	136	300	7.82	34.19	1.38	26.69	136	0.67
406	6.88	34.26	0.74	119	400	6.95	34.26	0.76	26.87	120	0.80

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
93.40	ORCA; December 5, 1958; 0555 GCT; 32°29'N, 118°11.5'W; sounding, 800 fm; wind, 270°, force 2; weather, overcast; sea, slight; wire angle, 06°.										
1	16.96	33.50	4.94	355	0	(16.96)	(33.50)	(4.94)	(24.39)	(355)	(0.00)
11	16.94	33.49	3.79	355	10	16.95	33.49	3.87	24.39	355	0.04
30	16.81	33.49	3.90	352	20	16.85	33.49	3.85	24.41	353	0.07
40	16.82	33.49	4.08	352	30	16.81	33.49	3.90	24.42	352	0.10
50	15.92	33.48	3.51	333	50	15.92	33.48	3.51	24.62	333	0.17
60	14.50	33.42	3.56	308	75	13.42	33.44	3.75	25.12	285	0.25
70	13.76	33.44	3.67	291							
85	12.83	33.44	3.90	274							
93.50	ORCA; December 5, 1958; 1200 GCT; 32°08'N, 118°51.5'W; sounding, 700 fm; wind, 270°, force 2; weather, overcast; sea, slight; wire angle, 03°.										
2	16.83	33.56	5.29	347	0	(16.83)	(33.56)	(5.29)	(24.47)	(347)	(0.00)
12	16.83	33.57	5.26	346	10	16.83	33.57	5.25	24.47	347	0.03
32	16.84	33.56	5.23	347	20	16.83	33.56	5.25	24.47	347	0.07
42	16.46	33.53	5.35	341	30	16.83	33.56	5.24	24.47	347	0.10
53	14.47	33.45	5.31	305	50	14.70	33.46	5.32	24.87	309	0.17
62	12.51	33.49	4.68	264	75	11.27	33.50	4.33	25.58	242	0.24
72	11.46	33.49	4.38	246	100	9.76	33.67	3.53	25.98	204	0.30
87	10.34	33.57	4.08	220	150	8.99	33.89	2.57	26.28	176	0.39
102	9.70	33.69	3.47	202							
117	9.36	33.75	3.19	191							
142	9.08	33.86	2.69	180							
172	8.72	33.95	2.34	167							
93.60	ORCA; December 5, 1958; 1848, 1907 GCT; 31°46'N, 119°31.5'W; sounding, 1000 fm; wind, 280°, force 6; weather, overcast; sea, rough; wire angle, 07°, 15°.										
1	16.74	33.55	5.40	346	0	(16.74)	(33.55)	(5.40)	(24.48)	(346)	(0.00)
11	16.74	33.57	5.56	345	10	16.74	33.56	5.53	24.49	345	0.03
30	16.38	33.55	5.66	338	20	16.74	33.57	5.56	24.50	344	0.07
40	15.82	33.49	5.71	330	30	16.38	33.55	5.66	24.57	338	0.10
50	14.75	33.48	5.47	308	50	14.75	33.48	5.47	24.88	308	0.17
60	13.28	33.46	5.12	281	75	11.63	33.50	4.66	25.52	248	0.24
70	12.00	33.50	4.73	254	100	10.50	33.59	3.97	25.79	222	0.30
84	11.17	33.51	4.53	239	150	9.01	33.85	2.89	26.24	179	0.40
99	10.56	33.58	4.00	223	200	8.64	34.01	2.24	26.42	162	0.48
115	9.84	33.68	3.63	205	250	8.04	34.14	1.72	26.62	143	0.56
140	9.22	33.79	3.16	187	300	7.54	34.19	1.48	26.72	133	0.63
					400	6.58	34.27	0.81	26.93	114	0.76
167	8.84	33.92	2.60	172	500	5.78	34.35	0.44	27.09	98	0.87
200	8.64	34.01	2.24	162							
247	8.08	34.14	1.73	144							
322	7.36	34.20	1.41	129							
418	6.39	34.29	0.74	111							
546	5.45	34.38	0.37	92							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m

93.70

ORCA; December 6, 1958; 0022, 0058 GCT; 31°30'N, 120°15'W; sounding, 2000 fm; wind, 270°, force 2; weather, cloudy; sea, moderate; wire angle, 04°, 04°.

1	17.04	33.51	5.42	356	0	(17.04)	(33.51)	(5.42)	(24.38)	(356)	(0.00)
12	17.04	33.51	5.54	356	10	17.04	33.51	5.53	24.38	356	0.04
31	17.01	33.49	5.51	356	20	17.03	33.50	5.52	24.38	356	0.07
57	17.05	33.55	5.48	353	30	17.01	33.49	5.51	24.37	356	0.11
67	16.85	33.55	5.46	348	50	17.04	33.54	5.49	24.40	353	0.18
77	15.04	33.48	5.71	315	75	15.30	33.48	5.69	24.76	320	0.26
87	14.72	33.50	5.65	306	100	14.34	33.51	5.52	24.99	298	0.34
102	14.24	33.51	5.50	296	150	10.42	33.72	3.34	25.90	211	0.46
116	12.06	33.49	4.89	256	200	9.46	33.90	2.36	26.21	182	0.56
136	10.74	33.60	4.00	225	250	8.75	34.04	1.57	26.43	161	0.65
156	10.30	33.76	3.11	206	300	7.93	34.12	1.40	26.62	143	0.73
180	9.79	33.86	2.58	190	400	6.60	34.19	1.02	26.86	120	0.87
204	9.40	33.91	2.31	181	500	5.87	34.25	0.64	27.00	107	0.99
254	8.68	34.05	1.50	159							
333	7.39	34.16	1.36	133							
423	6.40	34.20	0.89	117							
552	5.52	34.31	0.45	98							

93.80

ORCA; December 6, 1958; 0625 GCT; 31°10.5'N, 120°53'W; sounding, 1800 fm; wind, 310°, force 2; weather, overcast; sea, moderate; wire angle, 08°.

0	17.71	33.66	4.88	360	0	17.71	33.66	4.88	24.34	360	0.00
11	17.68	33.66	5.50	359	10	17.68	33.66	5.45	24.34	359	0.04
30	17.68	33.65	4.55	360	20	17.68	33.65	5.05	24.34	359	0.07
55	18.08	33.84	5.48	356	30	17.68	33.65	4.55	24.34	360	0.11
65	16.57	33.57	3.49	340	50	17.80	33.70	5.28	24.35	358	0.18
75	15.11	33.44	3.47	319	75	15.11	33.44	3.47	24.77	319	0.26
85	14.93	33.52	4.08	309	100	13.78	33.57	3.47	25.15	282	0.34
100	13.78	33.57	3.47	282	150	9.90	33.55	3.34	25.86	215	0.46
114	12.24	33.51	3.46	258	200	8.70	33.85	2.28	26.29	174	0.56
134	10.54	33.49	3.33	230	250	7.80	34.00	2.15	26.54	150	0.65
154	9.78	33.57	3.34	212	300	7.30	34.08	1.61	26.67	138	0.72
179	9.08	33.75	2.67	188	400	6.37	34.16	0.83	26.87	119	0.86
203	8.63	33.86	2.22	173	500	5.79	34.24	0.50	27.00	106	0.97
252	7.77	34.00	2.13	150							
330	7.02	34.12	1.23	131							
429	6.08	34.17	0.71	116							
557	5.62	34.31	0.35	100							

97.32

ORCA; December 2, 1958; 0025 GCT;[a] 32°11'N, 117°16'W; sounding, 700 fm; wind, 330°, force 4; weather, clear; sea, slight; wire angle, 17°.

429	6.98	34.24	0.84[b]	121
439	6.94	34.25	0.51	120
449	6.87	34.27	0.50	118
459	6.73	34.26	0.65	117
469	6.69	34.27	0.53	115
479	6.65	34.29	0.47	114
489	6.49	34.29	0.42	112
498	6.52	34.29	0.64	112
508	6.40	34.29	0.57	110
518	6.38	34.30	0.51	108
528	6.20	34.29	0.49	107
537	6.18	34.31	0.53	105
547	6.08	34.31	0.48	105
557	6.00	34.34	0.40	102
567	5.98	34.37	0.38	99
577	5.92	34.36	0.43	99
587	5.82	34.34	0.39	100

a) Test cast.
b) Alternate value, 1.09 ml/L, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
97.60	ORCA; December 3, 1958; 0507 GCT; 31°16.5'N, 119°08.5'W; sounding, 1000 fm; wind, 300°, force 2; weather, clear; sea, smooth; wire angle, 14°.										
1	16.78	33.49	5.49	351	0	(16.78)	(33.49)	(5.49)	(24.43)	(351)	(0.00)
11	16.78	33.50	5.51	350	10	16.78	33.50	5.50	24.44	350	0.04
30	16.74	33.51	5.40	349	20	16.76	33.51	5.45	24.45	349	0.07
59	15.88	33.50	5.42	331	30	16.74	33.51	5.40	24.45	349	0.10
69	15.40	33.53	5.53	318	50	16.60	33.51	5.40	24.48	346	0.17
79	14.01	33.45	5.51	296	75	14.69	33.49	5.53	24.89	307	0.26
94	12.81	33.56	5.00	266	100	12.49	33.58	4.96	25.42	257	0.33
108	12.00	33.59	4.94	248	150	9.50	33.63	3.96	25.98	203	0.44
120	10.88	33.57	4.78	230	200	8.62	33.92	3.01	26.36	168	0.54
140	9.83	33.57	4.34	213	250	8.12	34.04	2.30	26.52	152	0.62
160	9.26	33.70	3.60	194	300	7.57	34.10	1.66	26.66	140	0.70
187	8.82	33.87	3.15	175	400	6.68	34.20	0.98	26.85	121	0.83
210	8.44	33.95	3.90	164	500	6.13	34.28	0.63	26.99	108	0.95
261	8.01	34.05	2.16	150	600	(5.55)	(34.36)		(27.13)	(95)	(1.06)
340	7.01	34.14	1.31	131							
445	6.42	34.23	0.83	115							
580	5.65	34.34	0.37	98							
100.50	ORCA; December 2, 1958; 1805 GCT; 30°54'N, 118°11'W; sounding, 950 fm; wind, 320°, force 2; weather, clear; sea, moderate; wire angle, 02°.										
0	17.50	33.51	5.70	366	0	17.50	33.51	5.70	24.27	366	0.00
5	17.46	33.53	4.89	364	10	17.42	33.52	5.22	24.29	364	0.04
10	17.42	33.52	5.22	364	20	17.42	33.53	4.93	24.31	363	0.07
15	17.44	33.54	4.77	364	30	17.42	33.53	5.30	24.31	363	0.11
20	17.42	33.53	4.93	363	50	14.78	33.66	3.76	25.01	296	0.17
25	17.43	33.53	4.43	362	75	14.22	33.75	3.34	25.21	277	0.25
30	17.42	33.53	5.30	363	100	13.68	33.83	2.88	25.37	262	0.32
35	17.40	33.54	4.86	362	150	11.20	33.86	2.59	25.87	214	0.44
40	15.94	33.46	4.96	335							
50	14.78	33.66	3.76	296							
60	14.54	33.70	3.38	288							
71	14.34	33.75	3.44	280							
80	14.04	33.79	3.05	272							
90	13.90	33.81	3.05	267							
120	13.10	33.87	2.29	247							
150	11.20	33.86	2.59	214							
180	10.17	33.96	2.36	189							
100.60	ORCA; December 2, 1958; 2248 GCT; 30°41.5'N, 118°45'W; sounding, 1500 fm; wind, 330°, force 5; weather, clear; sea, rough; wire angle, 14°.										
2	17.89	33.66	5.44	364	0	(17.89)	(33.66)	(5.44)	(24.29)	(364)	(0.00)
11	17.84	33.60	5.42	367	10	17.86	33.61	5.44	24.26	367	0.04
31	17.26	33.49	5.13	362	20	17.77	33.58	5.38	24.26	367	0.07
61	15.34	33.44	5.53	323	30	17.27	33.49	5.13	24.31	362	0.11
70	14.66	33.46	5.61	309	50	17.20	33.48	5.16	24.32	361	0.18
79	13.80	33.46	5.40	291	75	14.28	33.46	5.53	24.98	299	0.26
93	12.44	33.46	5.00	266	100	12.08	33.47	4.94	25.40	258	0.34
108	11.60	33.48	4.87	249	150	9.80	33.56	4.13	25.88	213	0.45
122	10.82	33.50	4.47	234	200	8.75	33.94	2.89	26.36	168	0.55
141	10.10	33.50	4.28	222	250	8.24	34.08	2.13	26.53	151	0.63
159	9.48	33.69	3.82	198							
188	8.88	33.89	3.07	174							
211	8.62	33.97	2.79	165							
263	8.15	34.11	2.02	147							

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
82.47-O	XII-9	0735	34°14.5'	119°58.0'	315	320°	2	partly cloudy	slight	15.88	33.50
83.40-O	9	0350	34°12.0'	119°21.5'	14	320°	3	overcast	smooth	16.68	33.53
83.43-O	9	0150	34°07.0'	119°35.0'	140	320°	3	cloudy	smooth	16.27	33.53
83.51-O	8	2102	33°52.0'	120°07.5'	84	330°	3	cloudy	moderate	16.10	33.51
83.55-O	8	1828	33°44.0'	120°24.5'	552	320°	4	cloudy	rough	16.40	33.57
87.35-O	7	1845	33°50.0'	118°37.0'	160	280°	3	fog	smooth	16.88	33.53
87.45-O	8	0025	33°28.5'	119°20.0'	900	280°	2	clear	rough	16.71	33.55
87.50-O	8	0315	33°20.5'	119°40.0'	40	310°	1	clear	smooth	16.68	33.55
87.55-O	8	0545	33°09.0'	120°00.0'	600	270°	2	clear	very rough	16.46	33.53
97.30-O	3	2130	32°14.0'	117°08.0'	48	330°	1	fog	slight	16.54	-
97.32-O	3	2025	32°11.0'	117°16.0'	700	140°	1	clear	very rough	17.07	33.50
97.35-O	3	1810	32°05.0'	117°27.5'	600	290°	2	clear	very rough	17.27	33.55
97.40-O	3	1532	32°00.0'	117°51.0'	400	320°	2	clear	very rough	17.18	33.57
97.50-O	3	1015	31°37.0'	118°32.0'	1300	300°	2	clear	smooth	16.58	33.54
100.29-O	2	0553	31°42.0'	116°44.0'	100	160°	1	clear	smooth	17.76	33.68
100.30-O	2	0647	31°41.0'	116°46.5'	300	160°	2	clear	smooth	17.76	33.65
100.35-O	2	0935	31°29.0'	117°07.5'	650	270°	2	clear	smooth	18.43	33.74
100.40-O	2	1230	31°18.0'	117°28.5'	1100	270°	2	clear	smooth	18.28	33.72

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OBSERVED					COMPUTED	INTERPOLATED				COMPUTED			
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	δ cl/ton	ΔD dyn m
HORIZON; April 7, 1958; 0946 GCT; 0°03'N, 140°01'W; sounding, 2310 fm; wind, 130°, force 4; weather, partly cloudy; sea, slight; wire angle, 20°.													
0	27.14	35.14	4.66		507	0	27.14	35.14		22.80	507	507	0.00
217	12.54	34.90	2.15		161	10	27.12	35.14		22.81	506	506	0.05
406	9.86	34.77	-		124	20	26.90	35.15		22.89	498	499	0.10
622	7.10r	34.65	0.34			30	26.33	35.22		23.12	476	477	0.15
737	6.12	34.58	0.41		85	50	25.30	35.26		23.47	443	445	0.24
851	5.36	34.57	0.43		77	75	23.10	35.27		24.14	379	382	0.35
967	4.63	34.59	0.41		68	100	19.80	35.16		24.97	300	304	0.43
1004	4.40	34.58	0.62		66	125	17.69	34.96		25.34	264	268	0.50
1063	4.24	34.58	0.36		64	150	14.55	34.96		26.06	196	200	0.56
1110	4.09	34.77r	0.88			175	13.81	34.94		26.20	183	188	0.61
1147	3.97	34.63r	1.09			200	12.80	34.91		26.39	165	170	0.65
1174	3.89	34.56	1.20		62	225	12.40	34.90		26.45	159	165	0.70
1206	3.64	34.57	1.98		59	250	12.05	34.88		26.50	154	160	0.74
1229	3.58	34.60r	1.79			275	11.68	34.87		26.56	148	155	0.78
1252	3.55	34.57	1.99		58	300	11.32	34.84		26.61	144	151	0.81
1274	3.50	34.58	2.04		57	400	9.90	34.77		26.82	124	132	0.96
1284	3.46	34.60	2.08		55	500	7.84	34.69		27.07	100	109	1.08
						600	7.02	34.65		27.16	92	101	1.18
						700	6.36	34.59		27.21	87	97	1.28
						800	5.69	34.57		27.28	80	90	1.37
						1000	4.39	34.58		27.44	65	75	1.54
						1200	3.71	34.57		27.49	60	70	1.68

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED			
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	δ	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	cl/ton	dyn m

HORIZON; April 8, 1958; 1040 GCT; 0°01.5'S, 140°04.5'W; sounding, 2302 fm; wind, 120°, force 3; weather, partly cloudy; sea, missing; wire angle, 25°. 2

0	26.99	35.14		501	0	26.99	35.14		22.86	501	501	0.00
210	12.49	34.90		160	10	26.83	35.17		22.93	494	494	0.05
392	10.02	34.74		129	20	26.60	35.20		23.03	485	486	0.10
602	7.14	34.60		97	30	26.18	35.25		23.19	469	470	0.15
716	6.52a)	34.60		89	50	25.12	35.28		23.54	436	438	0.24
831	5.80r	34.56		81	75	22.27	35.32		24.40	354	357	0.34
947	4.60b)	34.55		70	100	20.15	35.22		24.91	305	308	0.42
984	4.40c)	34.56		68	125	18.23	35.00		25.24	274	278	0.49
1043	4.27d)	34.61r		-	150	15.65	34.98		25.83	218	222	0.56
1089	4.28	34.54		67	175	13.70	34.98		26.25	178	183	0.61
1127	4.13	34.56		65	200	12.70	34.92		26.41	163	168	0.65
1154	4.00	34.56		64	225	12.30	34.89		26.47	157	163	0.69
1188	3.94	34.57		61	250	12.02	34.87		26.50	154	160	0.73
1211	3.87e)	34.58		60	275	11.68	34.84		26.55	149	156	0.77
1234	3.65	34.60		57	300	11.37	34.83		26.59	146	153	0.81
1257	3.56	34.61		55	400	9.79	34.74		26.80	126	134	0.95
1266	3.56	34.60		56	500	7.84	34.62		27.02	105	114	1.08
					600	7.15	34.60		27.10	97	107	1.19
					700	6.61	34.60		27.18	90	100	1.29
					800	5.92	34.56		27.24	84	95	1.39
					1000	4.34	34.56		27.42	67	77	1.56
					1200	3.88	34.58		27.47	62	73	1.71

HORIZON; April 9, 1958; 1105 GCT; 0°01.5'S, 140°03'W; sounding, 2310 fm; wind, 110°, force 3; weather, partly cloudy; sea, moderate; wire angle, 15°. 3

0	27.00f)	35.16	4.51	501	0	27.00	35.16	4.51	22.86	501	501	0.00
9	26.80	35.16	4.56	494	10	26.76	35.16	4.56	22.94	493	493	0.05
33	26.26	35.23	4.30	473	20	26.59	35.19	4.45	23.02	486	487	0.10
58	25.00	35.26	3.92	434	30	26.34	35.22	4.33	23.11	477	478	0.15
82	22.21	35.32	3.20	352	50	25.58	35.26	4.15	23.38	451	453	0.24
117	19.54	35.14	3.07	296	75	22.99	35.28	3.28	24.17	376	379	0.34
146	16.48	34.95	3.09	239	100	21.40	35.31	3.15	24.64	331	335	0.43
184	13.66	34.97	3.07	178	125	18.89	35.03	3.08	25.10	287	291	0.51
228	12.32	34.92	2.48	156	150	16.26	34.96	3.10	25.68	232	237	0.58
282	11.49	34.84	0.82	147	175	14.40	34.97	3.10	26.10	192	197	0.63
318	10.83	34.80	0.63	138	200	12.92	34.94	2.89	26.38	165	170	0.68
424	8.95	34.69	0.56	116	225	12.35	34.92	2.49	26.48	156	162	0.72
532	7.30	34.58	1.19	100	250	11.98	34.88	1.61	26.52	152	158	0.76
642	6.80	34.54	1.45	97	275	11.59	34.84	0.90	26.58	147	154	0.80
855	5.20	34.54	1.98	77	300	11.17	34.82	0.70	26.62	143	150	0.84
1050	4.28	34.60	2.10	63	400	9.42	34.72	0.50	26.84	122	130	0.98
1268	3.50	34.58	2.17	57	500	7.63	34.61	1.04	27.04	103	111	1.10
					600	7.01	34.56	1.34	27.09	98	107	1.21
					700	6.37	34.53	1.68	27.16	92	102	1.31
					800	5.64	34.52	1.89	27.24	84	94	1.41
					1000	4.41	34.58	2.07	27.43	66	76	1.58
					1200	3.86	34.59	2.14	27.49	60	70	1.72

a) Mean value of 6.48 and 6.56°C.
b) Alternate value, 4.47°C.
c) Alternate value, 4.70°C.
d) Alternate value, 4.42°C.
e) Alternate value, 3.59°C.
f) Alternate value, 25.98°C.

SIO

DOLPHIN

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED			
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	δ	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	cl/ton	dyn m
4	HORIZON; April 10, 1958; 1045 GCT; 0°01.5'S, 140°03'W; sounding, 2300 fm; wind, 110°, force 3; weather, partly cloudy; sea, moderate; wire angle, 15°.												
0	26.94	35.14	4.63		500	0	26.94	35.14	4.63	22.87	500	500	0.00
9	26.74	35.15	4.62		493	10	26.72	35.15	4.62	22.94	493	493	0.05
33	26.38	35.16	4.47		482	20	26.65	35.15	4.60	22.97	490	491	0.10
57	25.50	35.25	4.24		450	30	26.46	35.16	4.49	23.04	484	485	0.15
82	23.22	35.25	3.31		384	50	25.88	35.23	4.35	23.27	462	464	0.24
116	19.24	35.07	3.06		293	75	24.15	35.26	3.56	23.81	410	413	0.35
145	16.28	34.96	3.11		232	100	21.80	35.31	3.12	24.53	341	345	0.45
182	13.27	34.94	3.06		171	125	18.61	35.03	3.07	25.15	282	286	0.53
228	12.34	34.88	2.45		159	150	14.99	34.96	3.10	25.98	204	208	0.59
286	11.52	34.84	0.91		148	175	13.59	34.95	3.07	26.25	178	183	0.64
321	10.96	34.81	0.67		139	200	12.60	34.89	2.67	26.41	163	168	0.68
429	9.06	34.67	0.61		119	225	12.38	34.88	2.47	26.44	160	166	0.72
535	7.73	34.61	1.10		104	250	12.11	34.88	2.08	26.49	155	161	0.76
654	6.91	34.60	1.50		83	275	11.73	34.86	1.12	26.55	149	156	0.80
872	5.07	34.58	2.09		73	300	11.34	34.83	0.81	26.60	145	152	0.84
1062	4.26	34.57	2.09		65	400	9.58	34.72	0.60	26.83	123	131	0.98
1280	3.50	34.60	2.27		55	500	8.09	34.63	0.87	26.99	108	117	1.11
						600	7.24	34.60	1.33	27.09	98	108	1.22
						700	6.50	34.56	1.66	27.16	91	101	1.32
						800	5.67	34.56	1.96	27.26	82	92	1.42
						1000	4.41	34.58	2.09	27.43	66	76	1.59
						1200	3.73	34.60	2.21	27.51	58	68	1.73
5	HORIZON; April 11, 1958; 0920 GCT; 0°01'S, 139°59.5'W; sounding, 2300 fm; wind, 100°, force 2; weather, partly cloudy; sea, missing; wire angle, 18°.												
0	26.92	35.19	4.56		496	0	26.92	35.19	4.56	22.91	496	496	0.00
9	26.84	35.16	4.71		496	10	26.83	35.16	4.71	22.91	496	496	0.05
33	26.45	35.16	4.54		484	20	26.69	35.16	4.66	22.95	492	493	0.10
58	25.71	35.23	4.17		458	30	26.50	35.16	4.56	23.02	486	487	0.15
82	23.32	35.26	3.50		386	50	25.99	35.20	4.30	23.21	467	469	0.24
115	19.98	35.12	3.34		309	75	24.35	35.26	3.68	23.75	416	419	0.35
143	17.29	35.05	3.25		249	100	22.63	35.30	3.44	24.29	364	368	0.45
178	13.26a)	34.94	3.25		171	125	18.89	35.06	3.29	25.11	286	290	0.54
217	12.92	34.91	2.96		168	150	16.20	35.03	3.25	25.74	226	231	0.60
267	12.14	34.89	2.15		154	175	13.41	34.95	3.26	26.29	174	179	0.65
298	11.77	34.88	1.50		149	200	13.05	34.92	3.05	26.34	169	174	0.70
396	9.40	34.71	0.64		121	225	12.83	34.90	2.87	26.38	166	172	0.74
493	8.20	34.69	0.57		105	250	12.40	34.89	2.49	26.44	160	166	0.78
590	7.06	34.62	1.38		94	275	12.03	34.88	1.95	26.51	153	160	0.82
781	5.57	34.60	1.91		77	300	11.65	34.86	1.30	26.58	147	154	0.86
964	4.34	34.58	2.08		65	400	9.33	34.71	0.62	26.86	120	128	1.00
1179	3.58	34.60	2.35		56	500	8.07	34.66	0.62	27.02	105	114	1.12
						600	6.98	34.61	1.43	27.13	94	103	1.23
						700	6.33	34.60	1.69	27.22	86	96	1.33
						800	5.40	34.58	2.00	27.32	76	86	1.42
						1000	4.22	34.58	2.10	27.45	64	74	1.58

a) Alternate value, 14.68°C.

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED			
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	δ	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	cl/ton	dyn m
HORIZON; April 12, 1958; 1625 GCT; 0°53'N, 140°01'W; sounding, 2360 fm; wind, 140°, force 2; weather, partly cloudy; sea, moderate; wire angle, 15°.													
0	27.70	35.02	4.27		532	0	27.70	35.02	4.27	22.53	532	532	0.00
9	27.52a)	35.03	4.85		526	10	27.50	35.03	4.85	22.60	526	526	0.05
33	27.01	35.03	4.69		510	20	27.33	35.03	4.80	22.66	520	521	0.11
58	24.30	34.99	3.65		432	30	27.13	35.03	4.74	22.72	514	515	0.16
82	21.32	34.96	3.06		354	50	26.10	35.02	4.40	23.04	484	486	0.26
117	18.18	34.96	3.09		276	75	22.10	34.98	3.10	24.20	373	376	0.36
145	14.84	34.79	2.38		215	100	20.20	34.96	3.07	25.70	325	328	0.45
185	12.53b)	34.81	2.19		168	125	17.02	34.92	3.01	25.47	252	256	0.53
232	12.16	34.88	2.08		156	150	14.13	34.79	2.36	26.02	200	204	0.58
292	11.62	34.83	3.05r		150	175	12.75	34.80	2.25	26.30	173	177	0.63
331	11.06	34.65r	0.49			200	12.44	34.83	2.19	26.38	165	170	0.67
447	9.22	34.69	0.75		120	225	12.26	34.87	2.14	26.46	158	164	0.72
565	7.47	34.61	1.16		100	250	11.98	34.87	1.85	26.50	154	160	0.76
683	6.72	34.56	1.58		94	275	11.79	34.85	1.55	26.53	151	158	0.80
905	5.10	34.57	2.00		74	300	11.52	34.82	1.11	26.56	148	155	0.84
1098	4.20	34.56	2.20		65	400	10.00	34.73	0.61	26.76	129	137	0.98
1320	3.45	34.60	2.22		55	500	8.23	34.65	0.83	26.99	108	117	1.11
						600	7.16	34.58	1.37	27.09	98	108	1.22
						700	6.59	34.56	1.64	27.16	92	102	1.33
						800	5.88	34.57	1.84	27.25	83	94	1.42
						1000	4.57	34.56	2.12	27.40	69	79	1.60
						1200	3.70	34.59	2.21	27.51	58	68	1.74
HORIZON; April 13, 1958; 1510 GCT; 1°59'N, 140°06'W; sounding, 2350 fm; wind, 150°, force 2; weather, partly cloudy; sea, missing; wire angle, 20°.													
0	28.66	34.74	4.74	0.39	582	0	28.66	34.74	4.74	22.00	583	583	0.00
9	28.53c)	34.74	4.41	0.53	579	10	28.52	34.74	4.41	22.05	578	578	0.06
33	28.15	34.72	4.54	0.48	568	20	28.43	34.73	4.46	22.07	576	577	0.12
56	27.10	34.95	4.28	0.81	519	30	28.31	34.72	4.51	22.12	572	573	0.17
80	23.39	34.90	3.22	1.00	414	50	27.66	34.84	4.44	22.41	544	546	0.29
113	15.50	34.89	1.53	1.87	221	75	24.30	34.91	3.50	23.51	439	442	0.41
140	13.92	34.93	1.08	2.25	186	100	17.97	34.91	2.13	25.23	275	278	0.50
175	13.10	34.92	1.19	2.21	170	125	14.78	34.92	1.27	25.98	203	207	0.56
218	12.60	34.88	1.09	2.25	163	150	13.52	34.93	1.13	26.26	177	181	0.61
276	11.50	34.81	1.01	2.51	149	175	13.10	34.92	1.19	26.32	171	176	0.65
310	11.06	34.79	0.96	2.46	142	200	12.82	34.90	1.18	26.36	167	172	0.70
423	8.80	34.67	0.62	2.76	115	225	12.48	34.88	1.08	26.42	162	168	0.74
534	7.92	34.63	0.81	2.83	105	250	12.02	34.84	1.04	26.48	156	162	0.78
642	6.74	34.58	1.11	2.95	93	275	11.51	34.81	1.01	26.55	149	156	0.82
854	5.28	34.56	1.76	2.85	77	300	11.20	34.80	0.99	26.61	144	151	0.86
1049	4.20	34.57	1.81	2.89	64	400	9.21	34.70	0.59	26.87	119	127	1.00
1269	3.43	34.62	1.82	2.87	53	500	8.12	34.64	0.76	27.00	107	116	1.12
						600	7.21	34.60	0.99	27.09	98	108	1.23
						700	6.37	34.58	1.33	27.19	89	99	1.33
						800	5.77	34.56	1.64	27.26	82	92	1.43
						1000	4.48	34.57	1.81	27.42	67	77	1.60
						1200	3.68	34.60	1.82	27.52	57	67	1.74

a) Alternate value, 27.43°C.
b) Alternate value, 14.67°C.
c) Alternate value, 28.25°C.

SIO

DOLPHIN

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED			
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	δ	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	cl/ton	dyn m
8	HORIZON; April 15, 1958; 1940 GCT; 1°00'S, 140°06'W; sounding, 2265 fm; wind, 120°, force missing; weather, partly cloudy; sea, missing; wire angle, 25°.												
0	27.42	35.23	4.49	0.55	509	0	27.42	35.23	4.49	22.77	509	509	0.00
9	27.40	35.22	4.58	0.66	509	10	27.39	35.22	4.58	22.77	509	509	0.05
31	27.24	35.22	4.42	0.65	504	20	27.33	35.22	4.55	22.80	507	508	0.10
54	26.78	35.26	4.28	0.71	487	30	27.26	35.22	4.43	22.82	505	506	0.15
78	24.81	35.45	3.84	0.85	415	50	26.91	35.25	4.32	22.95	492	494	0.25
110	19.52	35.48	2.75	1.40	271	75	25.30	35.40	3.96	23.57	433	436	0.37
137	15.88	35.21	1.58	1.68	206	100	20.75	35.52	2.96	24.98	299	303	0.46
173	13.64	35.02	1.33	2.03	173	125	16.70	35.28	1.87	25.82	219	223	0.53
214	12.28	34.90	1.44	1.77	156	150	14.81	35.12	1.38	26.13	189	193	0.58
268	11.70	34.83	0.80	-	151	175	13.51	35.00	1.36	26.31	172	177	0.62
300	11.28	34.83	0.78	1.74	143	200	12.50	34.92	1.44	26.45	159	164	0.67
402	9.14	34.68	0.61	2.69	120	225	12.20	34.89	1.38	26.48	156	162	0.71
514	8.26	34.63	0.80	2.55	110	250	11.97	34.86	1.02	26.50	154	160	0.75
632	6.75	34.61	1.40	1.57	91	275	11.63	34.83	0.80	26.55	149	156	0.79
856	5.36	34.55	1.83	2.64	79	300	11.28	34.83	0.78	26.62	143	150	0.83
1052	4.33a)	34.60	2.16	2.72	64	400	9.21	34.68	0.62	26.84	122	130	0.97
1277	3.60	34.60	2.17	3.23	56	500	8.31	34.63	0.78	26.95	111	120	1.09
						600	7.30	34.61	1.17	27.08	99	109	1.21
						700	6.14	34.58	1.58	27.23	85	94	1.31
						800	5.58	34.56	1.76	27.28	80	90	1.40
						1000	4.55	34.59	2.10	27.43	66	76	1.57
						1200	3.82	34.60	2.17	27.50	59	70	1.71
9	HORIZON; April 16, 1958; 2025, 2115 GCT; 2°04.5'S, 140°16'W; sounding, 2325 fm; wind, 110°, force 3; weather, partly cloudy; sea, moderate; wire angle, 12°, 03°.												
0	27.93	35.12	4.01	0.60	532	0	27.93	35.12	4.01	22.52	533	533	0.00
10	27.93	35.11	4.68	0.59	532	10	27.93	35.11	4.68	22.52	533	533	0.05
34	27.88	35.11	4.53	0.58	531	20	27.92	35.11	4.65	22.53	532	533	0.11
60	27.48	35.26	4.60	0.59	508	30	27.90	35.11	4.63	22.53	532	533	0.16
84	23.72	35.34	4.00	0.75	392	50	27.66	35.19	4.57	22.67	519	521	0.27
119	15.64	35.10	1.50	1.78	209	75	25.22	35.36	4.10	23.56	434	437	0.39
148	13.14	34.96	0.64	1.55	169	100	20.09	35.30	3.14	24.99	298	302	0.48
189	12.65	34.94	0.78	2.31	160	125	14.70	35.05	1.08	26.10	192	196	0.54
238	12.22	34.88	0.44	2.21	157	150	13.12	34.96	0.65	26.35	168	172	0.59
303	11.36	34.83	0.81	2.02	144	175	12.79	34.95	0.75	26.41	163	168	0.63
342	10.40	34.78	0.78	2.50	132	200	12.58	34.93	0.77	26.44	160	165	0.67
						225	12.34	34.90	0.50	26.46	158	164	0.71
468	8.39	34.64	0.99	2.76	111	250	12.10	34.87	0.45	26.49	155	161	0.75
590	7.46	34.61	1.52	2.85	100	275	11.78	34.84	0.65	26.52	152	159	0.79
714	5.90	34.56	1.91	1.96	84	300	11.42	34.83	0.79	26.58	146	153	0.83
942	4.90	34.55	2.32	2.56	73	400	9.32	34.68	0.83	26.83	123	131	0.97
1140	3.92	34.56	2.46	1.91	62	500	8.09	34.63	1.15	26.99	108	117	1.10
1369	3.25	34.60	2.39	2.84	53	600	7.28	34.61	1.57	27.09	98	108	1.21
						700	6.00	34.57	1.90	27.24	84	93	1.31
						800	5.39	34.55	2.16	27.30	78	88	1.40
						1000	4.48	34.56	2.42	27.41	68	78	1.57
						1200	3.78	34.58	2.46	27.49	60	70	1.71

a) Alternate value, 4.42°C.

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED			
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	δ	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	cl/ton	dyn m

10

HORIZON; April 18, 1958; 1215, 1320 GCT; 0°00', 139°59'W; sounding, 2310 fm; wind, 120°, force 3; weather, partly cloudy; sea, moderate; wire angle, 24°, 24°.

0	27.05	35.23	4.37	0.78	497	0	27.05	35.23	4.37	22.90	497	497	0.00
9	26.84	35.21	4.50	0.73	492	10	26.80	35.21	4.50	22.97	490	490	0.05
32	26.30	35.23	4.30	0.84	474	20	26.70	35.21	4.48	22.99	488	489	0.10
54	24.82	35.41	3.78	0.89	418	30	26.50	35.22	4.40	23.06	482	483	0.15
77	22.40	35.35	3.13	0.94	354	50	25.20	35.41	3.91	23.61	429	431	0.24
109	18.80	35.28	3.24	1.28	268	75	23.10	35.36	3.26	24.16	377	380	0.34
134	17.09	35.16	3.29	1.32	236	100	20.20	35.35	3.21	25.01	296	300	0.42
166	14.34	34.98	3.11	1.29	190	125	17.85	35.22	3.25	25.49	250	254	0.49
205	12.74	34.94	2.86	1.60	162	150	15.16	35.01	3.19	25.96	205	209	0.55
258	11.85	34.85	1.64	2.15	152	175	13.73	34.98	3.11	26.25	178	183	0.60
289	11.10	34.83	0.60	2.06	140	200	12.80	34.94	2.88	26.41	163	168	0.64
						225	12.40	34.90	2.56	26.46	158	164	0.69
394	9.34	34.70	0.60	2.51	121	250	12.00	34.86	1.96	26.50	154	160	0.73
497	7.84	34.61	0.88	2.97	106	275	11.47	34.84	0.80	26.58	146	150	0.77
600	7.09	34.59	1.26	2.67	97	300	10.94	34.82	0.60	26.67	138	145	0.80
797	5.36	34.55	1.90	2.13	78	400	9.30	34.69	0.60	26.84	122	130	0.94
983	4.48	34.57	2.12	1.15	66	500	7.82	34.61	0.91	27.02	105	114	1.06
1201	3.66	34.57	1.97	3.24	59	600	7.09	34.59	1.26	27.10	97	106	1.17
						700	6.13	34.57	1.64	27.21	87	96	1.27
						800	5.34	34.55	1.91	27.30	78	88	1.37
						1000	4.40	34.57	2.12	27.43	66	76	1.53
						1200	3.67	34.57	1.97	27.50	59	69	1.67

11

HORIZON; April 19-20, 1958; 2253, 2316, 0008 GCT; 0°01'S, 139°59'W; sounding, 2350 fm; wind, 140°, force 4; weather, partly cloudy; sea, missing; wire angle, 20°, 20-25°.

0	27.01	35.22	4.62	0.70	497	0	27.01	35.22	4.62	22.90	497	497	0.00
9	26.95	35.21	4.14	0.92	495	10	26.94	35.21	4.14	22.92	495	495	0.05
33	25.92a)	35.22	4.12	0.95	464	20	26.65	35.20	4.13	22.99	488	489	0.10
56	24.22	35.34	3.53	1.20	406	30	26.10	35.21	4.13	23.18	470	471	0.15
80	22.62	35.32	3.27	1.15	363	50	24.60	35.34	3.68	23.74	417	419	0.24
						75	23.30	35.34	3.27	24.12	380	383	0.34
107	20.36	35.36	3.22	1.08	300	100	21.30	35.33	3.21	24.68	327	331	0.43
136	18.13	35.21	3.20	1.05	257	125	18.69	35.24	3.20	25.30	268	272	0.50
167	14.33b)	35.13	3.27	1.28	179	150	15.68	35.17	3.26	25.98	204	209	0.56
201	12.96	34.91	3.07	1.75	169	175	13.87	35.05	3.25	26.27	176	181	0.61
						200	13.00	34.92	3.11	26.35	168	173	0.65
375	9.75c)	34.78	0.90r	2.55	122	225	12.46	34.89	2.57	26.43	161	167	0.70
472	8.46	34.67	0.70	3.08	110	250	11.96	34.88	1.69	26.52	152	158	0.74
570	7.09	34.61	1.26	3.10	95	275	11.57	34.87	1.00	26.60	145	152	0.78
751	5.72	34.56	1.80	2.93	81	300	11.15	34.86	0.71	26.66	139	146	0.81
907	4.75	34.55	2.11	-	72	400	9.39	34.75	0.60	26.88	118	126	0.95
1088	4.19	34.58	2.13	3.06	63	500	8.05	34.65	0.81	27.01	106	115	1.07
						600	6.83	34.60	1.39	27.14	93	102	1.18
						700	6.07	34.56	1.68	27.22	86	95	1.28
						800	5.40	34.56	1.93	27.30	78	88	1.37
						1000	4.40	34.57	2.12	27.43	66	76	1.53

a) Alternate value, 25.79°C.
b) Alternate value, 15.44°C.
c) Alternate value, 9.36°C.

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED			
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	δ	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	cl/ton	dyn m
12	HORIZON; April 21, 1958; 1548 GCT; 0°01'N, 139°59'W; sounding, 2350 fm; wind, 120°, force 3; weather, partly cloudy; sea, moderate; wire angle, 15°.												
0	27.28	35.32	4.77	0.68	498	0	27.28	35.32	4.77	22.89	498	498	0.00
9	26.82	35.28	4.49	0.73	487	10	26.81	35.28	4.48	23.02	486	486	0.05
33	26.38	35.26	4.31	0.73	474	20	26.65	35.27	4.41	23.05	483	484	0.10
57	25.32	35.35	3.92	0.89	437	30	26.47	35.26	4.34	23.11	477	478	0.15
81	23.86	35.41	3.23	0.96	391	50	25.80	35.32	4.11	23.35	454	456	0.24
115	20.44	35.25	3.12	0.94	310	75	24.00	35.42	3.25	23.98	394	397	0.35
141	17.15	35.09	3.10	1.04	243	100	20.77	35.27	3.12	24.79	317	321	0.44
174	14.92	35.09	3.16	1.36	194	125	18.00	35.14	3.10	25.40	259	263	0.51
216	12.90	34.99	2.84	1.65	162	150	16.55	35.09	3.13	25.71	229	234	0.57
271	11.97	34.94	1.92	2.13	148	175	14.50	35.08	3.12	26.16	186	191	0.62
304	11.46	34.85	0.80	1.85	145	200	13.40	35.02	2.96	26.34	169	174	0.67
404	9.45	34.74	0.59	2.86	120	225	12.77	34.99	2.76	26.45	159	165	0.71
503	8.22	34.67	0.72	2.89	107	250	12.38	34.98	2.43	26.51	153	159	0.75
601	7.12	34.61	1.28	2.85	96	275	11.87	34.93	1.60	26.58	147	154	0.79
788	5.52	34.60	1.80	3.29	77	300	11.52	34.86	0.85	26.60	145	152	0.83
964	4.57	34.56	1.98	3.29	69	400	9.54	34.75	0.59	26.85	121	129	0.97
1170	3.88	34.60	2.12	2.99	59	500	8.25	34.67	0.72	27.00	107	116	1.09
						600	7.13	34.61	1.27	27.11	96	106	1.20
						700	6.24	34.60	1.60	27.23	85	95	1.30
						800	5.40	34.59	1.86	27.32	76	86	1.39
						1000	4.40	34.57	2.04	27.42	67	77	1.56
13	HORIZON; April 22, 1958; 0110, 0232 GCT; 0°01'N, 140°00'W; sounding, 2350 fm; wind, 120°, force 3; weather, partly cloudy; sea, moderate; wire angle, 23°, 25°.												
0	27.04	35.28	4.71		493	0	27.04	35.28	4.71	22.94	493	493	0.00
10	27.04	35.27	4.63		494	10	27.04	35.27	4.63	22.93	494	494	0.05
33	26.75	35.26	4.49		486	20	26.92	35.27	4.54	22.96	491	492	0.10
56	25.96	35.32	4.07		459	30	26.80	35.26	4.50	23.00	487	488	0.15
77	24.48	35.37	3.43		411	50	26.30	35.29	4.22	23.18	470	472	0.24
104	20.48	35.28	3.07		309	75	24.70	35.37	3.52	23.74	417	420	0.36
129	17.34	35.15	3.36		243	100	20.70	35.30	3.07	24.83	313	317	0.45
161	14.97a)	35.13	3.25			125	18.10	35.19	3.32	25.41	258	262	0.52
201	13.31	34.99	2.83		169	150	16.05	35.14	3.32	25.87	214	219	0.58
253	12.26	34.90	2.22		156	175	13.83	35.03	3.00	26.27	176	181	0.63
286	11.82	34.87	1.55		150	200	13.32	34.99	2.84	26.34	169	174	0.67
						225	12.80	34.95	2.65	26.42	162	168	0.72
353	10.68	34.79	0.72		136	250	12.32	34.91	2.29	26.47	157	163	0.76
450	8.90	34.65	0.59		118	275	11.95	34.88	1.85	26.52	152	159	0.80
547	7.29	34.60	1.23		98	300	11.60	34.85	0.99	26.58	147	154	0.84
728	6.06	34.57	1.57		85	400	9.75	34.72	0.60	26.80	126	134	0.98
897	4.86	34.58	2.02		71	500	8.00	34.61	0.84	26.99	108	117	1.11
1099	4.06	34.60	1.98		61	600	6.90	34.58	1.36	27.13	94	103	1.22
						700	6.25	34.57	1.53	27.21	87	97	1.32
						800	5.44	34.57	1.88	27.30	78	88	1.41
						1000	4.39	34.59	2.01	27.44	65	75	1.57

a) Alternate value, 15.25°C.

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED			
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	δ	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	cl/ton	dyn m
HORIZON; April 23, 1958; 0001 GCT; 0°01'N, 140°00'W; sounding, 2350 fm; wind, 080°, force 2; weather, partly cloudy; sea, moderate; wire angle, 20°.													
0	27.32	35.26	4.67	0.75	503	0	27.32	35.26	4.67	22.83	504	504	0.00
9	27.10	35.26	4.50	0.63	496	10	27.08	35.26	4.48	22.92	495	495	0.05
32	26.56	35.30	4.22	-	478	20	26.90	35.27	4.40	22.97	490	491	0.10
56	24.99	35.44	3.63	0.92	420	30	26.58	35.30	4.24	23.10	478	479	0.15
79	23.90	35.43	3.13	-	390	50	25.14	35.44	3.68	23.65	425	427	0.24
111	19.34	35.26	2.77	0.98	282	75	24.20	35.44	3.24	23.94	398	401	0.34
137	16.87	35.24	2.89	1.32	226	100	20.70	35.33	2.81	24.85	311	315	0.43
171	13.37	34.96	2.99	1.36	172	125	17.70	35.26	2.85	25.56	243	247	0.50
212	12.66	34.89	2.72	1.42	164	150	15.95	35.19	2.92	25.92	209	214	0.56
266	11.96	34.87	1.66	1.99	153	175	13.30	34.95	2.98	26.31	172	177	0.61
297	11.27	34.86	0.64	1.94	141	200	12.90	34.91	2.85	26.36	167	172	0.65
398	9.33	34.70	0.54	2.81	121	225	12.50	34.89	2.60	26.43	161	167	0.69
496	7.78	34.62	0.88	3.23	104	250	12.18	34.88	2.14	26.48	156	162	0.74
595	7.08	34.60	1.23	3.27	96	275	11.70	34.87	1.08	26.56	148	155	0.77
791	5.51	34.54	1.82	2.84	81	300	11.24	34.86	0.63	26.64	141	148	0.81
973	4.62	34.56	1.89	2.79	70	400	9.30	34.69	0.55	26.85	121	129	0.95
1187	3.84	34.56	2.10	3.17	61	500	7.70	34.61	0.92	27.04	103	111	1.07
						600	7.00	34.59	1.27	27.11	96	105	1.18
						700	6.23	34.56	1.61	27.20	88	98	1.28
						800	5.44	34.54	1.82	27.28	80	90	1.37
						1000	4.46	34.56	1.94	27.42	67	77	1.54
HORIZON; April 23, 1958; 1935, 2000 GCT; 0°01'N, 140°00'W; sounding, 2350 fm; wind, 100°, force 2; weather, partly cloudy; sea, moderate; wire angle, 22°, 26°.													
0	27.60	35.26	4.77	0.72	512	0	27.60	35.26	4.77	22.73	513	513	0.00
8	27.18	35.30	4.45	0.69	496	10	27.13	35.30	4.42	22.92	495	495	0.05
32	26.66	35.30	4.37	0.66	480	20	26.96	35.30	4.41	22.97	490	491	0.10
55	24.98	35.40	3.50	0.72	423	30	26.74	35.30	4.38	23.04	484	485	0.15
78	23.42	35.35	3.00	1.39	382	50	25.10	35.40	3.56	23.63	427	429	0.24
111	19.50	35.24	2.91	0.90	288	75	23.90	35.37	3.12	23.97	395	398	0.34
139	16.88	35.17	2.99	1.10	230	100	21.00	35.29	2.92	24.73	322	326	0.43
175	13.37a)	35.07	2.91	1.18	188	125	17.31	35.18	2.98	25.60	240	244	0.50
213	12.86	34.96	2.65	1.27	162	150	16.46	35.16	2.97	25.78	222	227	0.56
261	12.18	34.88	2.07	1.68	157	175	13.37	35.07	2.91	26.40	164	169	0.61
292	11.62	34.84	0.96	1.93	149	200	13.03	35.00	2.79	26.41	163	168	0.66
						225	12.70	34.93	2.55	26.42	162	168	0.70
388	9.82	34.72	0.70	2.35	127	250	12.35	34.90	2.26	26.46	158	164	0.74
484	8.12	34.67	0.83	2.34	105	275	11.93	34.86	1.65	26.51	153	160	0.78
588	7.21	34.60	1.22	2.78	98	300	11.48	34.83	0.86	26.58	147	154	0.82
775	5.66	34.54	1.88	1.55	82	400	9.61	34.71	0.70	26.82	124	132	0.96
938	4.65	34.52	2.00	2.49	73	500	7.94	34.65	0.86	27.03	104	113	1.08
1126	3.94	34.56	2.07	2.84	63	600	7.12	34.60	1.26	27.10	97	106	1.19
						700	6.24	34.56	1.69	27.20	88	98	1.30
						800	5.47	34.54	1.91	27.28	80	90	1.39
						1000	4.46	34.53	2.02	27.39	70	80	1.56

a) Alternate value, 14.62°C.

	OBSERVED					COMPUTED	INTERPOLATED				COMPUTED			
	Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	δ	ΔD
	m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	cl/ton	dyn m
16	HORIZON; April 24, 1958; 0945, 1012 GCT; 0°56'N, 139°59'W; sounding, 2390 fm; wind, 140°, force 3; weather, partly cloudy; sea, moderate; wire angle, 22°, 26°.													
	0	27.46	35.16	4.76	0.74	515	0	27.46	35.16	4.76	22.71	515	515	0.00
	9	27.42	35.17	4.66	0.68	512	10	27.41	35.17	4.65	22.74	512	512	0.05
	32	27.00	35.12	4.50	0.68	504	20	27.30	35.17	4.61	22.77	509	510	0.10
	55	26.35	34.99	4.12	0.68	493	30	27.07	35.13	4.54	22.82	505	506	0.15
	78	22.58	34.97	3.16	1.02	387	50	26.60	35.03	4.27	22.89	498	500	0.25
	104	17.87	34.76	2.97	1.06	283	75	22.74	34.98	3.19	22.96	491	494	0.38
	125	15.76	34.86	3.04	1.20	229	100	18.52	34.81	2.98	25.02	295	298	0.48
	151	14.62	34.76	3.08	1.46	212	125	15.76	34.86	3.04	25.71	229	233	0.54
	184	13.28	34.81	2.67	1.44	181	150	14.63	34.76	3.08	25.88	213	217	0.60
	227	12.14	34.92r	2.00	1.73		175	13.55	34.79	2.80	26.14	188	193	0.65
	254	11.82	34.84	0.84	1.23	153	200	12.70	34.84	2.42	26.34	169	174	0.70
							225	12.19	34.84	2.11	26.45	159	164	0.74
	416	9.13	34.70	0.52	2.65	119	250	11.90	34.84	0.98	26.50	154	160	0.78
	531	7.98	34.65	0.90	2.79	104	275	11.54	34.83	0.79	26.56	148	154	0.82
	646	6.76	34.58	1.37	2.79	93	300	11.18	34.80	0.77	26.62	143	150	0.86
	861	4.98	34.57	1.96	2.90	73	400	9.50	34.71	0.56	26.83	123	131	1.00
							500	8.30	34.66	0.77	26.99	108	117	1.12
							600	7.16	34.59	1.22	27.10	97	107	1.23
							700	6.26	34.57	1.56	27.21	87	97	1.33
							800	5.42	34.57	1.83	27.30	78	88	1.43
17	HORIZON; April 24, 1958; 2245 GCT; 2°00'N, 140°06'W; sounding, 2330 fm; wind, 140°, force 4; weather, partly cloudy; sea, moderate; wire angle, 15°.													
	0	28.47	34.79	4.56	0.64	573	0	28.47	34.79	4.56	22.10	573	573	0.00
	9	28.44	34.78	4.66	0.52	573	10	28.44	34.78	4.66	22.10	573	573	0.06
	33	28.44	34.78	4.62	0.29	573	20	28.44	34.78	4.64	22.10	573	574	0.11
	57	27.56	34.94	4.42	0.55	533	30	28.44	34.78	4.62	22.10	573	574	0.17
	80	25.54	34.88	3.94	0.64	478	50	28.00	34.92	4.53	22.34	550	552	0.28
	111	18.24	34.87	2.20	0.65	284	75	25.85	34.89	4.03	23.02	486	489	0.41
	137	14.48	34.94	1.27	1.62	196	100	19.60	34.88	2.49	24.80	316	320	0.52
	173	13.23	34.96	1.35	1.76	170	125	15.90	34.90	1.53	25.71	229	233	0.58
	221	12.54a)	34.89	1.07	1.62	161	150	13.65	34.96	1.34	26.25	178	182	0.64
	281	11.72	34.85	0.87	1.97	150	175	13.17	34.96	1.34	26.34	169	174	0.68
	320	10.96	34.78	1.06	1.97	141	200	12.84	34.91	1.20	26.38	166	171	0.72
	443	8.69	34.67	0.60	2.49	113	225	12.47	34.88	1.04	26.42	162	168	0.77
	567	7.15	34.59	1.32	2.43	98	250	12.13	34.86	0.93	26.47	157	163	0.81
	692	6.09	34.55	1.56	2.31	87	275	11.80	34.85	0.87	26.52	152	159	0.85
	919	4.83	34.55	1.79	2.79	72	300	11.39	34.82	0.99	26.58	146	153	0.89
	1116	4.10	34.57	1.88	2.76	63	400	9.52	34.70	0.51	26.82	124	132	1.03
	1344	3.44	34.60	2.02	2.79	55	500	7.89	34.62	1.02	27.01	106	115	1.15
							600	6.90	34.58	1.37	27.12	95	104	1.26
							700	6.03	34.55	1.58	27.22	86	95	1.36
							800	5.30	34.55	1.75	27.30	78	88	1.45
							1000	4.43	34.56	1.85	27.42	67	77	1.62
							1200	3.85	34.58	1.95	27.49	60	70	1.77

a) Alternate value, 12.45°C.

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED			
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	δ	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	cl/ton	dyn m

HORIZON; April 25, 1958; 1305 GCT; 0°55.5'N, 139°56.5'W; sounding, 2310 fm; wind, 120°, force 4; weather, partly cloudy; sea, moderate; wire angle, 12°. 18

0	27.60	35.18	4.60	0.63	518	0	27.60	35.18	4.60	22.68	518	518	0.00
9	27.45	35.18	4.52	0.65	513	10	27.44	35.18	4.51	22.73	513	513	0.05
33	27.16	35.12	4.41	0.64	509	20	27.29	35.16	4.46	22.77	509	510	0.10
57	25.10	35.04	3.51	0.90	453	30	27.18	35.13	4.41	22.77	509	510	0.15
81	20.98	34.97	2.89	0.60	344	50	26.50	35.08	4.08	22.96	491	493	0.25
115	16.53	34.84	2.92	1.08	247	75	21.32	34.97	2.92	24.40	354	357	0.36
145	14.48	34.81	2.87	1.10	206	100	18.00	34.89	2.91	25.21	277	280	0.44
184	12.44	34.88	2.01	1.63	161	125	15.56	34.82	2.91	25.73	227	231	0.50
233	12.05	34.88	2.14	1.62	153	150	13.95	34.82	2.73	26.08	194	198	0.56
296	11.28	34.82	0.76	1.97	144	175	12.62	34.87	2.05	26.38	165	169	0.60
331	10.66	34.78	0.78	1.07	137	200	12.20	34.88	2.11	26.48	156	161	0.64
393	9.24	34.72	0.55	2.21	119	225	12.06	34.88	2.13	26.50	154	160	0.68
491	8.36	34.67	0.68	-	109	250	11.86	34.87	1.08	26.53	151	157	0.72
586	7.02	34.61	1.31	2.98	94	275	11.58	34.85	0.82	26.58	147	154	0.76
766	5.46	34.55	1.75	1.85	79	300	11.22	34.82	0.76	26.62	143	150	0.80
921	4.66	34.59	2.05	2.93	68	400	9.11	34.71	0.56	26.89	117	125	0.94
1100	4.06	34.60	2.10	3.18	61	500	8.21	34.67	0.74	27.01	106	115	1.06
						600	6.95	34.61	1.32	27.13	94	103	1.17
						700	6.02	34.56	1.58	27.23	85	94	1.27
						800	5.21	34.56	1.86	27.32	76	86	1.36
						1000	4.34	34.60	2.08	27.45	64	74	1.52

HORIZON; April 26, 1958; 1830 GCT; 1°00'S, 140°03.5'W; sounding, missing; wind, 110°, force 3; weather, partly cloudy; sea, moderate; wire angle, 05°. 19

0	27.76	35.14	4.46	0.68	526	0	27.76	35.14	4.46	22.60	526	526	0.00
10	27.65	35.15	4.60	0.88	521	10	27.65	35.15	4.60	22.64	522	522	0.05
35	27.32	35.20	4.17	0.60	509	20	27.56	35.16	4.56	22.68	518	519	0.10
60	25.80	35.41	4.22	0.75	447	30	27.42	35.18	4.28	22.74	512	513	0.16
86	23.00	35.53	3.26	0.94	359	50	26.50	35.33	4.22	23.14	474	476	0.26
121	19.22	35.48	2.78	1.10	263	75	23.30	35.53	3.32	24.27	366	369	0.36
151	15.90	35.25	2.33	1.63	203	100	21.27	35.55	3.05	24.86	310	314	0.45
190	13.28	34.96	2.38	1.50	170	125	18.30	35.44	2.47	25.55	244	248	0.52
240	12.16	34.88	1.96	0.80	155	150	15.97	35.26	2.33	25.98	204	209	0.57
305	11.62	34.84	0.88	0.76	149	175	13.75	35.01	2.39	26.27	176	181	0.62
344	10.66	34.69	0.77	1.76	143	200	13.20	34.96	2.37	26.34	169	174	0.67
470	8.52	34.58	0.63	1.13	118	225	12.34	34.90	2.08	26.47	157	163	0.71
594	7.04	34.59	1.44	1.04	97	250	12.09	34.88	1.65	26.50	154	160	0.75
716	6.06	34.55	1.61	1.60	87	275	11.90	34.86	1.19	26.52	152	159	0.79
943	4.66	34.56	2.27	2.64	70	300	11.70	34.84	0.95	26.54	150	157	0.83
1138	3.90	34.59	2.08	2.85	60	400	9.21	34.60	0.57	26.79	127	135	0.97
1366	3.21	34.60	2.27	2.76	53	500	8.20	34.58	0.84	26.93	113	122	1.10
						600	7.00	34.59	1.45	27.11	96	105	1.22
						700	6.20	34.56	1.57	27.20	88	98	1.32
						800	5.36	34.56	2.00	27.30	78	88	1.41
						1000	4.40	34.57	2.20	27.42	67	77	1.58
						1200	3.67	34.60	2.14	27.52	57	67	1.72

	OBSERVED					COMPUTED	INTERPOLATED				COMPUTED			
	Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	δ	ΔD
	m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	cl/ton	dyn m
20	HORIZON; April 27, 1958; 1413 GCT; 2°04'S, 140°17'W; sounding, 2330 fm; wind, 110°, force 2; weather, partly cloudy; sea, moderate; wire angle, 00°.													
	0	28.22	34.70	4.17	0.52	572	0	28.22	34.70	4.17	22.12	572	572	0.00
	10	28.12	34.70	4.70	0.58	569	10	28.12	34.70	4.70	22.16	568	568	0.06
	35	27.80	34.91	4.76	0.58	543	20	27.99	34.74	4.74	22.23	561	562	0.11
	60	27.30	35.30	4.62	0.67	500	30	27.86	34.82	4.74	22.34	551	552	0.17
	85	25.12	35.36	4.05	1.04	430	50	27.55	35.13	4.69	22.67	519	521	0.28
	120	16.67	35.16	1.71	-	227	75	25.62	35.37	4.16	23.45	444	447	0.40
	151	13.49	34.96	1.03	1.78	174	100	21.00	35.32	3.50	24.76	320	324	0.49
	191	12.64	34.91	0.83	1.87	163	125	15.85	35.12	1.43	25.89	212	216	0.56
	241	12.21	34.90	0.47	2.57	156	150	13.50	34.96	1.04	26.28	175	179	0.61
	307	11.70	34.85	0.46	2.57	149	175	12.80	34.92	0.88	26.38	165	170	0.65
	347	11.28	34.85	0.78	2.19	142	200	12.52	34.90	0.70	26.43	161	166	0.70
	469	8.60	34.67	1.06	2.23	112	225	12.32	34.90	0.54	26.47	157	163	0.74
	592	7.00	34.59	1.61	1.32	96	250	12.14	34.89	0.46	26.50	154	160	0.78
	714	5.91	34.56	1.71	0.90	84	275	11.97	34.87	0.46	26.51	153	160	0.82
	943	4.77	34.54	2.01	2.19	73	300	11.77	34.85	0.46	26.53	151	158	0.86
	1141	3.87	34.56	2.28	2.22	62	400	9.62	34.71	0.82	26.81	125	133	1.00
	1368	3.19	34.61	2.43	1.99	52	500	8.18	34.64	1.21	26.99	108	117	1.13
							600	6.90	34.58	1.61	27.12	95	104	1.24
							700	5.99	34.56	1.69	27.24	84	93	1.34
							800	5.36	34.55	1.87	27.30	78	88	1.43
							1000	4.45	34.54	2.16	27.40	69	79	1.60
							1200	3.63	34.58	2.34	27.51	58	68	1.74
21	HORIZON; May 14, 1958; 0227, 0257 GCT; 0°00', 137°00'W; sounding, 2310 fm; wind, 100°, force 4; weather, partly cloudy; sea, moderate; wire angle, 24°, 24°.													
	0	26.22	35.26	3.38r		470	0	26.22	35.26		23.18	470	470	0.00
	8	26.22	35.28	2.62r		469	10	26.20	35.28		23.19	469	469	0.05
	31	26.02	35.28	2.28r		462	20	26.14	35.28		23.22	466	467	0.09
	54	24.17	35.25	1.97r		411	30	26.03	35.28		23.26	463	464	0.14
	77	19.98	35.25	1.52r		299	50	24.45	35.26		23.73	418	420	0.23
	108	18.64	35.16	1.71r		272	75	20.35	35.25		24.88	308	311	0.32
							100	19.10	35.20		25.17	281	284	0.39
	135	15.94	35.08	1.67r		217	125	16.50	35.10		25.73	227	231	0.46
	169	14.58	35.05	1.79r		190	150	15.22	35.07		26.00	202	206	0.51
	211	12.50	34.92	2.49		159	175	13.55	34.99		26.29	174	179	0.56
	265	12.09	34.87	1.96		155	200	12.63	34.93		26.43	161	166	0.60
	300	11.56	34.85	0.87		147	225	12.40	34.91	2.43	26.46	158	164	0.65
	406	10.17	34.76	0.48		130	250	12.23	34.89	2.24	26.48	156	162	0.69
	511	8.44	34.66	0.74		111	275	11.99	34.87	1.71	26.51	153	160	0.73
	616	7.02	34.60	1.33		95	300	11.56	34.85	0.87	26.59	146	153	0.77
	819	5.47	34.56	1.75		79	400	10.26	34.76	0.50	26.74	131	140	0.91
	1008	4.44	34.56	2.01		68	500	8.60	34.66	0.70	26.93	113	122	1.04
	1228	3.59	34.60	2.06		57	600	7.21	34.60	1.23	27.09	98	108	1.16
							700	6.20	34.56	1.57	27.21	87	97	1.26
							800	5.55	34.56	1.73	27.28	80	90	1.35
							1000	4.47	34.56	2.01	27.41	68	78	1.52
							1200	3.69	34.60	2.05	27.52	57	67	1.67

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED			
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	δ	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	cl/ton	dyn m

HORIZON; May 15, 1958; 0308 GCT; 0°00', 134°00'W; sounding, 2360 fm; wind, 100°, force 4; weather, partly cloudy; sea, moderate; wire angle, 12°. 22

0	25.92	35.19	4.30	466	0	25.92	35.19	4.30	23.22	466	466	0.00
9	25.93	35.21	4.29	465	10	25.93	35.21	4.29	23.25	464	464	0.05
33	25.50	35.21	4.03	452	20	25.92	35.21	4.27	23.25	464	465	0.09
58	23.60	35.20	3.50	399	30	25.81	35.21	4.22	23.28	461	462	0.14
82	20.30a)	35.34	3.12	300	50	24.01	35.20	3.60	23.81	410	412	0.23
117	16.42	35.10	3.23	225	75	20.91	35.32	3.13	24.80	316	319	0.32
147	15.08	35.05	3.12	200	100	18.16	35.21	3.22	25.42	257	260	0.39
184	13.06	34.92	2.89	170	125	15.89	35.08	3.17	25.86	215	219	0.45
231	12.58	34.92	2.64	160	150	14.92	35.04	3.12	26.05	197	201	0.50
292	11.88	34.87	1.37	151	175	13.20	34.92	2.95	26.31	172	177	0.55
329	10.89	34.77	0.69r	141	200	12.91	34.92	2.82	26.38	166	171	0.59
447	8.98	34.69	0.84	116	225	12.67	34.92	2.71	26.42	162	168	0.64
564	7.42	34.60	1.18	101	250	12.40	34.91	2.45	26.46	158	164	0.68
683	6.36	34.58	1.52	88	275	12.10	34.89	1.92	26.50	154	161	0.72
905	4.73	34.56	1.94	71	300	11.72	34.85	1.20	26.55	149	156	0.76
1097	4.06	34.56	2.00	64	400	9.71	34.72	0.70	26.81	125	133	0.90
1318	3.46	34.60	2.17	55	500	8.26	34.64	0.97	26.98	109	118	1.03
					600	7.10	34.59	1.29	27.10	97	106	1.14
					700	6.20	34.58	1.60	27.22	86	96	1.24
					800	5.50	34.57	1.83	27.30	78	88	1.33
					1000	4.42	34.56	1.97	27.41	68	78	1.50
					1200	3.67	34.57	2.10	27.50	59	69	1.65

HORIZON; May 16, 1958; 0330 GCT; 0°00', 131°00'W; sounding, 2400 fm; wind, 110°, force 5; weather, clear; sea, moderate; wire angle, 15°. 23

0	26.53	34.62	4.47	526	0	26.53	34.62	4.47	22.60	526	526	0.00
9	26.52	34.63	4.61	524	10	26.52	34.63	4.60	22.63	523	523	0.05
33	25.94	34.70	4.21	501	20	26.42	34.65	4.57	22.66	520	521	0.10
58	23.69	34.99	3.73	416	30	26.18	34.68	4.40	22.75	511	512	0.16
82	20.36	35.26	3.10	308	50	24.30	34.92	3.85	23.51	439	441	0.25
116	17.70	35.18	2.81r	249	75	21.05	35.24	3.14	24.68	327	330	0.35
145	15.52	35.07	3.17	209	100	18.76	35.22	3.20	25.27	271	274	0.42
183	13.52	34.97	3.03	174	125	16.84	35.13	3.22	25.67	233	237	0.49
229	12.38	34.92	2.44	157	150	14.79	35.03	3.13	26.06	196	200	0.54
288	11.71	34.88	0.97	147	175	13.78	34.98	3.06	26.24	179	184	0.59
325	10.76	34.79	0.40	137	200	12.76	34.93	2.77	26.41	163	168	0.63
439	8.50	34.70	0.70	109	225	12.40	34.92	2.46	26.47	157	163	0.68
554	7.08	34.61	1.26	95	250	12.17	34.90	2.00	26.50	154	160	0.72
669	6.30	34.58	1.56	87	275	11.88	34.88	1.42	26.54	150	157	0.76
880	4.78	34.57	1.92	70	300	11.47	34.85	0.72	26.60	145	152	0.79
1064	4.20	34.58	2.04	64	400	9.34	34.72	0.54	26.86	120	128	0.93
1276	3.38	34.60	2.08	54	500	7.66	34.63	1.00	27.05	102	110	1.05
					600	6.70	34.60	1.38	27.17	91	100	1.16
					700	6.13	34.58	1.68	27.23	85	94	1.26
					800	5.44	34.57	1.87	27.30	78	88	1.35
					1000	4.37	34.58	2.02	27.43	66	76	1.51
					1200	3.72	34.59	2.08	27.51	58	68	1.65

a) Alternate value, 20.20°C.

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED			
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	δ	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	cl/ton	dyn m
24	HORIZON; May 17, 1958; 0505, 0525 GCT; 0°04'N, 127°55'W; sounding, 2350 fm; wind, 130°, force 2; weather, clear; sea, moderate; wire angle, 16°, 16°.												
0	25.66	34.94	4.40		474	0	25.66	34.94	4.40	23.14	474	474	0.00
10	25.66	34.96	4.53		476	10	25.66	34.96	4.53	23.12	476	476	0.05
34	23.82	34.90	4.07		427	20	25.37	34.90	4.50	23.18	470	471	0.09
58	21.12	35.22	3.19		330	30	24.45	34.90	4.28	23.45	444	445	0.14
						50	21.90	35.20	3.24	24.42	352	354	0.22
82	19.28	35.26	3.15		281	75	19.82	35.26	3.16	25.04	293	296	0.30
113	16.37	35.17	3.27		219	100	17.22	35.20	3.24	25.64	236	239	0.37
139	14.20	34.97	3.09		188	125	15.00	35.03	3.17	26.02	200	204	0.42
174	12.80a)	34.86	2.72		169	150	13.50	34.93	3.00	26.26	177	181	0.47
220	12.48	34.90	2.49		160	175	12.79	34.88	2.71	26.36	167	172	0.52
278	11.81	34.87	1.20		150	200	12.60	34.90	2.60	26.42	162	167	0.56
314	11.57	34.85	0.71		147	225	12.40	34.90	2.41	26.45	159	165	0.60
426	8.99	34.68	0.70		117	250	12.13	34.89	2.03	26.50	154	160	0.64
540	7.62	34.63	0.99		101	275	11.86	34.87	1.35	26.53	151	158	0.68
656	6.50	34.57	1.52		90	300	11.68	34.86	0.81	26.56	148	155	0.72
873	5.12	34.57	1.89		74	400	9.63	34.72	0.63	26.82	124	132	0.86
1063	4.16	34.57	1.97		64	500	7.99	34.65	0.87	27.02	105	114	0.98
1287	3.44	34.58	2.27		57	600	6.95	34.60	1.27	27.13	94	103	1.09
						700	6.19	34.57	1.71	27.21	87	97	1.19
						800	5.56	34.57	1.86	27.29	79	89	1.29
						1000	4.41	34.57	1.94	27.42	67	77	1.45
						1200	3.71	34.58	2.11	27.51	58	68	1.60
25	HORIZON; May 18, 1958; 0620 GCT; 0°02'S, 125°00'W; sounding, 2530 fm; wind, 130°, force 2; weather, partly cloudy; sea, moderate; wire angle, 12°.												
0	25.53	35.03	4.52		466	0	25.53	35.03	4.52	23.22	466	466	0.00
9	25.51	35.04	4.68		464	10	25.51	35.04	4.68	23.25	464	464	0.05
34	24.60	35.16	4.24		430	20	25.41	35.06	4.66	23.29	460	461	0.09
58	22.48	35.17	3.49		370	30	25.04	35.12	4.45	23.44	445	446	0.14
83	19.02	35.19	3.31		280	50	23.08	35.16	3.66	24.06	386	388	0.22
118	16.59	35.12	3.36		227	75	20.60	35.20	3.33	24.78	318	321	0.31
145	14.62	34.96	3.13		198	100	17.49	35.17	3.38	25.54	245	248	0.38
182	12.86	34.87	3.09		170	125	15.60	35.05	3.22	25.90	211	215	0.44
230	12.20	34.90	1.94		154	150	14.30	34.94	3.12	26.09	193	197	0.49
292	11.72	34.84	0.84		151	175	13.10	34.88	3.13	26.30	173	178	0.54
329	11.08	34.81	0.48		142	200	12.56	34.90	2.75	26.42	162	167	0.58
447	8.85	34.67	0.74		116	225	12.27	34.90	2.12	26.48	156	162	0.62
564	7.38	34.62	1.18		98	250	12.08	34.88	1.65	26.50	154	160	0.66
681	6.36	34.55	1.58		90	275	11.90	34.86	1.24	26.52	152	159	0.70
903	5.00	34.58	2.01		72	300	11.61	34.84	0.71	26.56	148	155	0.74
1095	4.18	34.56	2.10		65	400	9.77	34.72	0.58	26.80	126	134	0.89
1317	3.52	34.56	2.18		59	500	8.10	34.65	0.94	27.01	106	115	1.02
						600	7.00	34.58	1.32	27.11	96	105	1.13
						700	6.19	34.56	1.71	27.21	87	97	1.23
						800	5.57	34.57	1.94	27.29	79	89	1.32
						1000	4.42	34.57	2.08	27.43	66	76	1.48
						1200	3.80	34.56	2.15	27.48	61	71	1.63

a) Alternate value, 13.52°C.

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED			
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	δ	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	cl/ton	dyn m

26

HORIZON; May 19, 1958; 0915, 0939 GCT; 0°12.5'S, 122°01'W; sounding, 2330 fm; wind, 120°, force 3; weather, partly cloudy; sea, moderate; wire angle, 03°, 04°.

0	25.75	34.63	4.61	501	0	25.75	34.63	4.61	22.86	501	501	0.00
10	25.46a)	34.67	4.43	490	10	25.46	34.67	4.43	22.97	490	490	0.05
34	22.90	34.97	3.82	396	20	24.47	34.76	4.31	23.34	455	456	0.10
					30	23.30	34.92	3.97	23.81	410	411	0.14
60	20.18	35.35	3.20	297	50	21.38	35.30	3.31	24.64	331	333	0.21
85	17.90	35.26	3.26	248	75	18.50	35.30	3.28	25.39	260	263	0.29
118	15.56	35.12	3.21	205	100	15.98	35.15	3.23	25.89	212	215	0.35
147	14.71	35.06	3.20	192	125	15.39	35.11	3.22	25.99	203	207	0.40
185	13.51	34.88	2.99	181	150	14.69	35.06	3.20	26.10	192	196	0.45
233	12.42	34.79	2.22	167	175	13.79	34.92	3.05	26.19	184	189	0.50
294	11.80	34.84	1.04	152	200	13.11	34.84	2.87	26.27	176	181	0.55
331	11.26	34.63r	0.52		225	12.59	34.80	2.47	26.34	169	175	0.59
448	8.32	34.52r	0.81		250	12.23	34.81	1.94	26.41	163	169	0.63
568	7.12	34.58	1.21	98	275	11.95	34.83	1.31	26.49	155	162	0.68
691	6.20	34.53	1.71	90	300	11.70	34.84	0.89	26.54	150	157	0.71
					400	9.30	34.70	0.54	26.85	121	129	0.86
					500	7.80	34.64	0.95	27.04	103	112	0.98
					600	6.90	34.56	1.31	27.10	97	106	1.09

27

HORIZON; May 20, 1958; 0855 GCT; 0°04'N, 118°57'W; sounding, 2159 fm; wind, 100°, force 3; weather, clear; sea, moderate; wire angle, 25°.

0	25.14	34.87	4.53	467	0	25.14	34.87	4.53	23.21	467	467	0.00
8	24.90	34.86	4.57	460	10	24.34	34.88	4.37	23.47	443	443	0.05
31	21.78	34.96	3.52	366	20	22.90	34.90	3.91	23.92	400	401	0.09
53	19.85	35.35	3.09	288	30	22.00	34.94	3.60	24.20	373	374	0.13
76	18.06	35.22	3.26	254	50	20.13	35.33	3.13	25.00	297	299	0.19
108	15.88	35.13	3.26	211	75	18.10	35.22	3.25	25.44	255	258	0.26
135	15.28	34.88r	3.21		100	16.22	35.14	3.26	25.82	219	222	0.32
172	13.60	34.94	3.15	179	125	15.39	35.06	3.22	25.95	206	210	0.38
206	12.64	34.92	2.41	161	150	14.75	34.98	3.19	26.04	198	202	0.43
254	12.02	34.88	1.34	153	175	13.45	34.94	3.10	26.28	175	180	0.48
284	11.65	34.85	0.66	149	200	12.73	34.92	2.54	26.41	163	168	0.52
373	9.40	34.71	0.48	121	225	12.44	34.91	2.15	26.46	158	164	0.56
462	8.06	34.66	0.77	104	250	12.11	34.88	1.55	26.50	154	160	0.60
553	7.28	34.60	1.32	99	275	11.79	34.86	0.84	26.54	150	157	0.64
719	6.07	34.54	1.95	87	300	11.35	34.83	0.48	26.61	144	151	0.68
868	5.02	34.55	2.01	74	400	8.86	34.69	0.53	26.92	114	122	0.82
1051	4.15	34.56	2.02	64	500	7.72	34.64	0.99	27.04	103	111	0.93
					600	6.90	34.56	1.60	27.11	96	105	1.04
					700	6.18	34.54	1.92	27.20	88	98	1.14
					800	5.58	34.54	1.99	27.27	81	91	1.24
					1000	4.34	34.56	2.03	27.43	66	76	1.40

a) Alternate value, 25.37°C.

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED			
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	δ	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	cl/ton	dyn m
28	HORIZON; May 21, 1958; 0819 GCT; 0°02'S, 115°58'W; sounding, 2146 fm; wind, 120°, force 3; weather, partly cloudy; sea, moderate; wire angle, 06°.												
0	24.98	34.96	4.54		455	0	24.98	34.96	4.54	23.34	455	455	0.00
10	24.86	34.94	4.56		452	10	24.86	34.94	4.56	23.36	453	453	0.05
34	22.62	35.00	3.98		386	20	24.08	34.92	4.38	23.58	432	433	0.09
59	19.12	35.29	3.25		275	30	23.00	34.97	4.10	23.93	399	400	0.13
83	15.92	35.08	3.26		215	50	20.00	35.29	3.27	25.00	297	299	0.20
119	14.10	34.97	3.20		186	75	16.40	35.14	3.26	25.79	222	224	0.27
149	12.84	34.92	2.49		165	100	14.66	35.00	3.24	26.07	195	198	0.32
190	12.59	34.90	2.21		162	125	13.75	34.95	3.14	26.22	181	184	0.37
239	12.16	34.92	1.78		152	150	12.80	34.91	2.48	26.39	165	169	0.41
302	11.48	34.85	0.52		146	175	12.64	34.91	2.32	26.41	163	168	0.45
340	10.27	34.75	0.34		132	200	12.49	34.90	2.16	26.44	160	165	0.50
459	8.03	34.63	0.85		107	225	12.22	34.90	1.87	26.49	155	161	0.54
573	7.04	34.59	1.42		96	250	12.06	34.90	1.59	26.52	152	158	0.58
684	6.10	34.56	1.72		86	275	11.83	34.88	1.00	26.55	149	156	0.61
870	4.83	34.56	1.87		72	300	11.50	34.85	0.57	26.59	146	153	0.65
1016	4.24	34.54	2.20		67	400	8.75	34.66	0.57	26.92	114	122	0.79
1183	3.60	34.58	2.17		58	500	7.67	34.62	1.07	27.05	102	110	0.91
						600	6.84	34.58	1.52	27.13	94	103	1.01
						700	5.97	34.56	1.75	27.23	85	94	1.11
						800	5.28	34.55	1.82	27.31	77	87	1.20
						1000	4.30	34.54	2.19	27.42	67	77	1.37
29	HORIZON; May 22, 1958; 0700 GCT; 0°02'S, 112°57.5'W; sounding, 2138 fm; wind, 110°, force 2; weather, partly cloudy; sea, moderate; wire angle, 20°.												
0	24.01	34.81	4.62		438	0	24.01	34.81	4.62	23.52	438	438	0.00
9	23.55	34.85	4.41		422	10	23.50	34.85	4.40	23.70	421	421	0.04
33	19.46	35.12	3.43		295	20	22.20	34.94	3.75	24.14	379	380	0.08
56	17.08	35.17	3.34		235	30	20.20	35.06	3.45	24.77	319	320	0.12
80	16.09	35.01	3.40		225	50	17.71	35.20	3.35	25.51	248	250	0.18
113	14.68	34.97	3.05		198	75	16.28	35.03	3.39	25.73	227	229	0.23
141	13.54	34.96	3.12		176	100	15.30	34.98	3.20	25.91	210	213	0.29
177	12.73	34.93	2.40		163	125	14.10	34.97	3.10	26.16	186	190	0.34
219	12.21	34.90	1.83		155	150	13.27	34.96	2.95	26.32	171	175	0.39
276	12.02	34.88	1.39		153	175	12.75	34.94	2.42	26.41	163	168	0.43
310	11.65	34.87	0.83		147	200	12.42	34.92	2.09	26.46	158	163	0.47
417	8.54	34.68	0.65		111	225	12.20	34.90	1.80	26.49	155	161	0.51
524	7.22	34.63	1.22		96	250	12.10	34.89	1.54	26.50	154	160	0.55
630	6.70	34.60	1.34		91	275	12.03	34.88	1.41	26.51	153	160	0.59
825	5.28	34.55	2.06		77	300	11.80	34.87	1.10	26.54	150	157	0.63
994	4.50	34.56	2.01		68	400	8.84	34.70	0.58	26.92	114	122	0.77
1188	3.68	34.60	2.10		57	500	7.47	34.64	1.19	27.08	99	107	0.88
						600	6.83	34.61	1.29	27.16	92	101	0.99
						700	6.16	34.57	1.69	27.22	86	96	1.09
						800	5.45	34.56	2.05	27.29	79	89	1.18
						1000	4.47	34.55	2.01	27.40	69	79	1.35

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED			
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	δ	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	cl/ton	dyn m

30

HORIZON; May 23, 1958; 0832 GCT; 0°01.5'N, 109°59'W; sounding, 2040 fm; wind, 110°, force 3; weather, partly cloudy; sea, moderate; wire angle, 23°.

0	23.26	34.91	4.41	410	0	23.26	34.91	4.41	23.81	410	410	0.00
9	23.10	34.93	4.42	403	10	23.09	34.93	4.42	23.88	403	403	0.04
23	22.20	34.97	4.13	377	20	22.70	34.96	4.30	24.01	391	392	0.08
41	19.46	35.01	3.56	303	30	21.15	35.00	3.86	24.47	347	348	0.12
64	16.94	35.01	3.33	244	50	18.00	35.01	3.39	25.29	269	271	0.18
97	15.81	35.07	3.37	215	75	16.60	35.03	3.37	25.66	234	236	0.24
132	14.18	34.99	3.22	187	100	15.70	35.06	3.37	25.87	214	217	0.30
162	12.98	34.96	2.67	165	125	14.59	35.00	3.28	26.09	193	197	0.35
201	12.79	34.94	2.35	163	150	13.13	34.96	2.80	26.36	167	171	0.40
250	12.44	34.90	2.04	160	175	12.91	34.95	2.63	26.40	164	169	0.44
280	11.88	34.88	1.00	150	200	12.80	34.94	2.36	26.41	163	168	0.48
377	10.71	34.79	0.44	137	225	12.63	34.92	2.22	26.43	161	167	0.52
471	8.34	34.66	0.70	110	250	12.44	34.90	2.04	26.44	160	166	0.56
564	7.29	34.60	1.19	99	275	11.94	34.88	1.14	26.53	151	158	0.61
732	6.08	34.61	1.56	82	300	11.61	34.85	0.72	26.56	148	155	0.64
880	5.26	34.54	1.97	78	400	10.21	34.76	0.46	26.74	131	140	0.79
1049	4.28	34.57	2.01	65	500	7.76	34.62	1.03	27.03	104	112	0.92
					600	7.10	34.60	1.23	27.11	96	106	1.03
					700	6.41	34.60	1.40	27.21	87	97	1.13
					800	5.61	34.55	1.91	27.27	81	91	1.22
					1000	4.49	34.56	2.00	27.41	68	78	1.39

31

HORIZON; May 24, 1958; 0745 GCT; 0°02'S, 106°57.5'W; sounding, 1965 fm; wind, 100°, force 2; weather, partly cloudy; sea, moderate; wire angle, 03°.

0	23.52	34.87	4.49	420	0	23.52	34.87	4.49	23.71	420	420	0.00
10	23.49	34.87	4.65	418	10	23.49	34.87	4.65	23.73	418	418	0.04
25	23.10	34.89	4.42	407	20	23.27	34.88	4.52	23.79	412	413	0.08
45	21.74	35.01	4.00	361	30	22.93	34.90	4.38	23.90	402	403	0.12
70	18.34	35.11	3.39	270	50	21.52	35.03	3.94	24.39	355	357	0.20
111	15.92	35.05	3.39	219	75	17.80	35.09	3.39	25.42	257	260	0.28
150	14.41	34.99	3.20	191	100	16.30	35.06	3.39	25.74	226	229	0.34
190	13.00	34.95	2.57	167	125	15.33	35.02	3.33	25.94	207	211	0.39
238	12.62	34.92	2.24	161	150	14.41	34.99	3.20	26.11	191	195	0.44
302	11.46	34.84	0.57	146	175	13.20	34.96	2.71	26.34	169	174	0.49
341	11.00	34.83	0.66	139	200	12.93	34.94	2.53	26.39	165	170	0.53
464	8.06	34.65	0.94	106	225	12.73	34.93	2.33	26.42	162	168	0.58
586	7.10	34.60	1.20	96	250	12.41	34.91	2.07	26.46	158	164	0.62
706	6.02	34.56	1.86	85	275	11.91	34.87	1.05	26.52	152	159	0.66
926	4.60	34.56	1.92	69	300	11.50	34.84	0.58	26.59	146	153	0.70
1117	3.88	34.60	1.97	59	400	9.62	34.74	0.55	26.83	123	131	0.84
1337	3.24	34.60	2.13	53	500	7.65	34.62	1.02	27.05	102	110	0.96
					600	6.98	34.59	1.29	27.12	95	104	1.07
					700	6.11	34.56	1.85	27.22	86	96	1.17
					800	5.37	34.56	1.95	27.30	78	88	1.26
					1000	4.27	34.58	1.94	27.45	64	74	1.42
					1200	3.67	34.60	2.01	27.52	57	67	1.56

SIO

DOLPHIN

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED			
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	δ	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	cl/ton	dyn m
32	HORIZON; May 25, 1958; 0747 GCT; 0°03.5'N, 103°46'W; sounding, 1825 fm; wind, 120°, force 1; weather, partly cloudy; sea, slight; wire angle, 16°.												
0	23.20	34.90	4.53		409	0	23.20	34.90	4.53	23.82	409	409	0.00
10	22.97	34.93	4.59		400	10	22.97	34.93	4.59	23.92	400	400	0.04
24	21.75	34.92	4.22		369	20	22.13	34.92	4.36	24.14	379	380	0.08
43	18.44	34.91	3.28		286	30	21.36	34.92	4.13	24.36	358	359	0.12
67	16.10	34.90	2.93		233	50	17.41	34.91	2.98	25.36	262	264	0.18
105	14.80	35.01	3.20		197	75	15.44	34.93	3.11	25.85	216	218	0.24
143	13.56	34.99	3.08		173	100	14.83	35.01	3.20	26.04	198	201	0.29
177	13.10	34.96	2.66		168	125	13.87	35.00	3.12	26.24	179	182	0.34
219	12.64	34.94	2.25		160	150	13.40	34.98	2.93	26.31	172	176	0.38
275	12.18	34.91	1.57		154	175	13.12	34.96	2.67	26.35	168	173	0.43
310	11.78	34.86	0.86		150	200	12.84	34.95	2.45	26.41	163	168	0.47
417	8.58	34.67	0.61		112	225	12.61	34.94	2.23	26.45	159	165	0.51
523	7.63	34.61	0.96		103	250	12.41	34.92	1.96	26.47	157	163	0.55
628	6.86	34.60	1.51		93	275	12.18	34.91	1.57	26.50	154	161	0.59
819	5.32	34.56	1.86		77	300	11.89	34.88	1.02	26.53	151	158	0.63
981	4.52	34.54	2.03		70	400	9.18	34.70	0.55	26.88	118	126	0.78
1141	4.00	34.58	2.01		61	500	7.75	34.61	0.88	27.03	104	112	0.89
						600	7.08	34.60	1.32	27.12	95	104	1.00
						700	6.24	34.59	1.71	27.22	86	96	1.10
						800	5.43	34.57	1.84	27.30	78	88	1.20
						1000	4.41	34.55	2.03	27.41	68	78	1.36
33	HORIZON; May 26, 1958; 0420 GCT; 0°08'N, 100°58'W; sounding, 1750 fm; wind, 110°, force 1; weather, partly cloudy; sea, slight; wire angle, 22°.												
0	23.73	34.98	4.61		418	0	23.73	34.98	4.61	23.73	418	418	0.00
9	22.90	34.94	4.28		398	10	22.89	34.94	4.27	23.94	398	398	0.04
23	21.00	34.96	4.16		346	20	21.50	34.96	4.21	24.35	359	360	0.08
41	18.40	34.89	3.28		287	30	20.11	34.93	3.79	24.70	325	326	0.11
64	16.81	34.93	3.13		247	50	17.66	34.92	3.17	25.32	266	268	0.17
99	14.84	34.89	2.37r		207	75	16.60	34.93	3.13	25.58	242	244	0.24
134	13.60	35.00	3.13		174	100	14.82	34.89	3.15	25.95	206	209	0.29
167	13.36	34.97	2.88		171	125	13.73	35.00	3.14	26.27	176	179	0.34
208	13.02	34.93	2.42		168	150	13.49	34.98	3.03	26.31	172	176	0.39
259	12.48	34.88	1.66		162	175	13.30	34.96	2.77	26.32	171	176	0.43
291	11.65	34.85	0.74		149	200	13.09	34.93	2.50	26.35	168	173	0.47
390	8.70	34.66	0.66		114	225	12.88	34.92	2.34	26.38	166	172	0.52
489	7.80	34.74	0.92			250	12.60	34.89	2.01	26.41	163	169	0.56
588	7.20	34.58	1.32		99	275	12.12	34.86	1.17	26.48	156	163	0.60
769	5.65	34.56	1.85		81	300	11.44	34.83	0.64	26.59	146	153	0.64
925	4.82	34.54	1.98		73	400	8.56	34.66	0.67	26.93	113	120	0.78
1107	4.16	34.55	1.90		66	500	7.71	34.60	0.98	27.03	104	112	0.89
						600	7.11	34.58	1.34	27.09	98	108	1.00
						700	6.30	34.58	1.51	27.20	88	98	1.11
						800	5.43	34.55	1.91	27.29	79	89	1.20
						1000	4.49	34.55	1.95	27.40	69	79	1.37

34

HORIZON; May 27, 1958; 0303 GCT; 0°04.5'N, 97°56'W; sounding, 1788 fm; wind, 120°, force 2; weather, partly cloudy; sea, moderate; wire angle, 18°.

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED			
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	δ	ΔD
m	°C	‰	ml/L	μg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	cl/ton	dyn m
0	23.84	35.14	4.59		410	0	23.84	35.14	4.59	23.81	410	410	0.00
9	23.42	35.16	4.62		397	10	23.35	35.16	4.62	23.99	393	393	0.04
23	21.60	35.17	4.22		347	20	21.80	35.17	4.28	24.43	351	352	0.08
42	17.34	35.11	3.56		246	30	19.60	35.16	3.99	25.02	295	296	0.11
66	16.40	34.96	3.11		236	50	16.84	35.02	3.28	25.59	241	243	0.16
99	13.92	34.94	2.94		185	75	14.81	34.95	2.99	26.00	202	204	0.22
132	13.37	34.93	2.73		174	100	13.91	34.94	2.94	26.19	184	187	0.27
164	13.26	34.96	2.34		170	125	13.49	34.93	2.80	26.26	177	180	0.31
204	12.70	34.91	1.86		163	150	13.28	34.96	2.39	26.32	171	175	0.36
257	12.22	34.88	1.37		157	175	13.20	34.96	2.24	26.34	169	174	0.40
289	11.30	34.81	0.50		146	200	12.80	34.92	1.93	26.40	164	169	0.45
391	8.80	34.67	0.47		115	225	12.58	34.90	1.75	26.42	162	168	0.49
492	7.58	34.65	0.97		99	250	12.33	34.88	1.47	26.46	158	164	0.53
592	6.96	34.60	1.32		94	275	11.80	34.85	0.88	26.53	151	158	0.57
782	5.76	34.57	1.54		81	300	11.01	34.78	0.49	26.63	142	149	0.61
954	4.72	34.55	2.08		71	400	8.67	34.67	0.49	26.92	114	122	0.74
1159	3.88	34.60	2.02		59	500	7.52	34.64	1.01	27.08	99	107	0.86
						600	6.90	34.60	1.32	27.14	93	102	0.96
						700	6.23	34.58	1.38	27.22	86	96	1.06
						800	5.59	34.56	1.65	27.28	80	90	1.15
						1000	4.53	34.56	2.07	27.41	68	78	1.32

35

HORIZON; May 28, 1958; 0255 GCT; 0°02.5'N, 94°51'W; sounding, 1794 fm; wind, 200°, force 1; weather, clear; sea, moderate; wire angle, 18°.

0	23.62	34.98	4.61		415	0	23.62	34.98	4.61	23.77	414	414	0.00
9	22.70	34.97	4.31		390	10	22.50	34.98	4.24	24.08	384	384	0.04
23	20.76	35.05	3.81		333	20	21.35	35.02	3.95	24.43	351	352	0.08
42	17.74	35.14	3.29		252	30	19.90	35.10	3.62	24.88	308	309	0.11
66	15.92	34.98	3.19		223	50	16.70	35.00	3.22	25.60	240	242	0.16
103	14.70	35.09	3.12		190	75	15.61	35.02	3.19	25.87	214	216	0.22
139	14.20	35.05	2.93		181	100	14.76	35.09	3.13	26.11	191	194	0.27
175	13.71a)	34.98	2.71		177	125	14.48	35.08	3.06	26.16	186	190	0.32
218	13.52	34.97	2.56		175	150	14.01	35.03	2.87	26.23	180	184	0.37
265	12.02	34.90	1.04		151	175	13.71	34.98	2.71	26.26	177	182	0.41
310	11.18	34.84	0.67		141	200	13.60	34.97	2.63	26.27	176	181	0.46
418	9.18	34.72	0.52		117	225	13.47	34.97	2.51	26.30	173	179	0.50
527	7.80	34.67	0.76		101	250	12.60	34.93	1.68	26.44	160	166	0.55
637	6.47r	34.60	1.25		(88)	275	11.90	34.89	0.99	26.54	150	157	0.59
843	5.38	34.55	1.77		79	300	11.43	34.86	0.77	26.61	144	151	0.63
1027	4.48	34.52	1.80		71	400	9.56	34.74	0.52	26.84	122	130	0.77
1245	3.50	34.56	2.12		59	500	8.03	34.68	0.68	27.04	103	112	0.89
						600	7.06	34.60	1.13	27.12	95	105	1.00
						700	6.22	34.58	1.50	27.22	86	96	1.10
						800	5.61	34.56	1.71	27.27	81	91	1.19
						1000	4.55	34.52	1.80	27.37	72	82	1.36
						1200	3.77	34.55	2.01	27.47	62	72	1.52

a) Alternate value, 13.25°C.

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED			
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	δ	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	cl/ton	dyn m
36	HORIZON; May 29, 1958; 0153 GCT; 0°04'N, 91°51'W; sounding, 1724 fm; wind, 090°, force 1; weather, partly cloudy; sea, slight; wire angle, 06°.												
0	21.88	35.14	5.34		355	0	21.88	35.14	5.34	24.39	355	355	0.00
10	18.82	35.10	3.60		281	10	18.82	35.10	3.60	25.17	281	281	0.03
25	18.64	35.07	3.63		279	20	18.71	35.08	3.62	25.18	280	281	0.06
45	18.06	35.04	3.46		267	30	18.63	35.07	3.63	25.19	279	280	0.09
69	16.40	34.93	3.20		238	50	18.04	35.04	3.45	25.32	266	268	0.14
109	15.02	34.98	3.20		204	75	16.38	34.93	3.20	25.62	238	240	0.21
150	14.98	35.08	3.17		197	100	15.20	34.96	3.20	25.92	209	212	0.26
189	14.96	35.08	3.01		195	125	15.01	35.02	3.19	26.01	201	205	0.31
239	14.56	35.05	2.75		190	150	14.98	35.08	3.17	26.07	195	199	0.37
302	11.70	34.85	1.00		150	175	14.97	35.08	3.07	26.08	194	199	0.42
341	10.92	34.80	0.33		140	200	14.95	35.08	3.00	26.08	194	200	0.46
464	9.00	34.70	0.56		116	225	14.87	35.08	2.93	26.09	193	200	0.51
586	7.32	34.59	1.16		100	250	14.26	35.03	2.72	26.18	185	192	0.56
710	6.46	34.59	1.32		89	275	13.27	34.97	2.41	26.33	170	177	0.61
937	4.67	34.53	1.93		72	300	11.77	34.86	1.06	26.54	150	157	0.65
1133	3.92	34.58	1.84		61	400	9.92	34.74	0.41	26.79	127	135	0.80
1360	3.23	34.59	2.16		54	500	8.47	34.70	0.73	26.99	108	117	0.92
						600	7.19	34.59	1.19	27.09	98	108	1.04
						700	6.49	34.59	1.31	27.19	89	99	1.14
						800	5.81	34.57	1.61	27.26	82	92	1.24
						1000	4.42	34.55	1.89	27.41	68	78	1.41
						1200	3.68	34.58	1.96	27.51	58	68	1.55
37	HORIZON; May 30, 1958; 0115 GCT; 0°04.5'N, 88°55.5'W; sounding, 1286 fm; wind, 140°, force 1; weather, overcast; sea, slight; wire angle, 12°.												
0	22.66	35.05	4.45		383	0	22.66	35.05	4.45	24.09	383	383	0.00
10	22.24	35.03	4.68		373	10	22.24	35.03	4.68	24.20	373	373	0.04
24	20.98	35.04	4.17		339	20	21.09	35.04	4.23	24.53	341	342	0.07
44	19.90	35.07	3.83		310	30	20.86	35.04	4.15	24.59	336	337	0.11
69	16.97	35.16	2.92		233	50	19.82	35.08	3.81	24.89	307	309	0.17
108	15.64	35.08	2.84		210	75	16.90	35.16	2.94	25.68	232	234	0.24
147	14.61	34.99	2.68		196	100	16.10	35.11	2.89	25.83	218	221	0.30
186	14.42	35.01	2.41		190	125	15.01	35.01	2.78	26.00	202	206	0.35
235	13.09	34.94	1.32		169	150	14.59	34.99	2.67	26.08	194	198	0.40
299	11.84	34.87	0.51		151	175	14.47	35.00	2.52	26.11	191	196	0.45
338	10.86	34.81	0.54		137	200	14.20	35.00	2.21	26.16	186	192	0.50
460	8.28	34.64	0.61		110	225	13.53	34.96	1.79	26.27	176	182	0.55
583	7.28	34.61	0.91		98	250	12.75	34.92	0.91	26.40	164	170	0.59
707	6.32	34.59	1.10		87	275	12.27	34.90	0.59	26.48	156	163	0.63
934	4.86	34.58	1.56		71	300	11.83	34.87	0.51	26.54	150	157	0.67
1131	4.16	34.58	1.87		63	400	9.53	34.70	0.55	26.82	124	132	0.82
1358	3.40	34.59	1.99		56	500	7.94	34.62	0.72	27.01	106	115	0.94
						600	7.08	34.60	0.94	27.11	96	106	1.05
						700	6.41	34.59	1.09	27.19	89	99	1.15
						800	5.83	34.58	1.25	27.27	81	91	1.25
						1000	4.57	34.58	1.72	27.42	67	77	1.42
						1200	3.82	34.58	1.94	27.50	59	69	1.56

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	δ_T	Z	T	S	O_2	δ_T	δ	ΔD
m	°C	‰	ml/L	cl/ton	m	°C	‰	ml/L	cl/ton	cl/ton	dyn m

1

STRANGER; August 15, 1958; 1520, 1636 GCT; 5°00'N, 107°26'W; sounding, 2150 fm; wind, 340°, 9 kt; weather, slight drizzle; sea, rough; wire angle, 37°, 45°.

0	24.80	34.22	2.79u	503	0	24.80	34.22		503	503	0.00
42	24.46	34.26	2.74u	490	10	24.74	34.22		502	502	0.05
65	24.22	34.36	2.11u	477	20	24.67	34.23		499	500	0.10
87	23.65	34.49	2.07u	451	30	24.58	34.24		496	497	0.15
100	23.03	34.62	2.52u	424	50	24.38	34.29		486	488	0.25
111	22.63	34.70	2.36u	408	75	24.01	34.41		470	473	0.37
126	22.39	34.78	3.10	394	100	23.03	34.62		425	428	0.48
167	15.41	34.79	0.92	237	150	20.80	34.78	2.73	354	359	0.68
206	13.68	34.88	0.72	183	200	13.83	34.88	0.73	188	193	0.82
241	13.10	34.88	0.85	173	250	12.88	34.87	0.91	170	176	0.91
					300	11.23	34.72	1.24	151	158	0.99
319	10.88	34.69	1.25	146	400	9.80	34.65	0.76	132	140	1.14
393	9.88	34.65	0.80	133	500	8.57	34.62	0.17	115	125	1.27
466	9.06	34.63	0.27	122	600	7.28	34.55	0.15	102	112	1.39
541	7.90	34.60	0.10	107	700	6.30	34.54	0.48	90	100	1.50
610	7.17	34.55	0.16	101	800	5.48	34.53	0.84	81	91	1.59
676	6.57	34.56	0.32	92	1000	4.45	34.53	1.13	70	80	1.76
755	5.76	34.52	0.77	85							
919	4.82	34.54	0.97	73							
1089	4.10	34.53	1.26	67							

2

STRANGER; August 15, 1958; 0014, 0130, 0230 GCT; 6°00'N, 107°22.5'W; sounding, 2180 fm; wind, 240°, 9 kt; weather, partly cloudy; sea, missing; wire angle, 41°, 44°, 46°.

0	26.78	34.07	4.59	572	0	26.78	34.07	4.59	573	573	0.00
20	26.79	34.07	4.62	572	10	26.78	34.07	4.60	573	573	0.06
38	24.98	34.31	4.65	501	20	26.79	34.07	4.62	573	574	0.11
59	23.81	34.51	4.45	454	30	26.20	34.14	4.64	550	551	0.17
77	22.43	34.77	4.43	397	50	24.30	34.42	4.50	475	476	0.27
92	22.08	34.81	4.35	384	75	22.57	34.74	4.44	403	406	0.38
105	21.08	34.85	4.33	355	100	21.38	34.85	4.34	364	367	0.48
					150	17.55	34.72	2.01	279	284	0.64
141	18.96	34.78	2.46	308	200	11.99	34.68	1.37	167	172	0.76
175	13.47	34.61	1.50	200	250	10.62	34.69	1.10	143	148	0.84
225	11.08	34.70	1.33	149	300	10.06	34.68	0.79	134	140	0.91
					400	9.18	34.65	0.42	122	130	1.04
520	8.08	34.60	0.24	110	500	8.28	34.61	0.25	112	121	1.17
649	6.62	34.53	0.33	95	600	7.20	34.54	0.28	102	112	1.29
729	5.96	34.56	0.39	84	700	6.17	34.55	0.36	88	98	1.39
918	4.87	34.54	0.80	74	800	5.46	34.56	0.61	79	89	1.48

3

STRANGER; August 16, 1958; 1030, 1245 GCT; 7°00'N, 107°25'W; sounding, 2190 fm; wind, 190°, 15 kt; weather, cloudy; sea, moderate; wire angle, 26°, 35°.

0	26.80	34.11	4.49	570	0	26.80	34.11	4.49	570	570	0.00
99	21.74	34.81	3.34	376	10	26.74	34.12	4.48	568	568	0.06
120	17.36	34.68	2.11	277	20	26.64	34.14	4.47	563	564	0.11
141	15.22	34.63	1.66	233	30	26.53	34.18	4.47	557	558	0.17
163	13.22	34.76	0.33	184	50	26.28	34.23	4.46	546	548	0.28
181	12.52	34.78	0.31	170	75	25.41	34.40	4.40	508	511	0.41
201	11.82	34.76	0.47	159	100	21.03	34.80	3.12	358	362	0.52
242	11.01	34.70	0.72	148	150	14.55	34.66	1.32	218	222	0.67
301	10.18	34.67	0.81	136	200	11.84	34.76	0.46	159	163	0.76
357	9.65	34.65	0.76	129	250	10.90	34.70	0.75	147	152	0.84
					300	10.20	34.67	0.80	137	144	0.92
959	5.07r	34.52r	0.64								
1204	4.00r	34.54r	1.01								

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	δ_T	Z	T	S	O_2	δ_T	δ	ΔD
m	°C	‰	ml/L	cl/ton	m	°C	‰	ml/L	cl/ton	cl/ton	dyn m
4	STRANGER; August 16, 1958; 2057 GCT; 8°00'N, 107°20'W; sounding, 2010 fm; wind, 180°, 12 kt; weather, cloudy; sea, rough; wire angle, 12°.										
0	27.23	33.14	4.58	653	0	27.23	33.14	4.58	653	653	0.00
61	26.93	33.84	4.32	594	10	27.20	33.45	4.54	630	630	0.06
85	23.75	34.72	4.16	437	20	27.17	33.52	4.51	624	625	0.13
108	21.30	34.63	3.03	377	30	27.12	33.58	4.47	618	619	0.19
130	14.78	34.68	0.69	221	50	27.03	33.75	4.41	603	605	0.31
172	12.31	34.74	0.34	169	75	26.37	34.05	4.31	562	565	0.46
221	11.36	34.72	0.48	153	100	22.05	34.64	3.39	397	400	0.58
265	10.84	34.70	0.76	145	150	13.20	34.73	0.40	186	190	0.73
331	10.06	34.68	0.51	134	200	11.80	34.73	0.39	160	165	0.81
396	9.59	34.68	0.51	126	250	10.97	34.70	0.72	148	154	0.89
529	7.85	34.55	0.27a)	110	300	10.38	34.68	0.63	139	146	0.97
					400	9.54	34.68	0.52	126	134	1.11
					500	8.26	34.59	0.32	113	122	1.24
5	STRANGER; August 17, 1958; 1558 GCT; 9°00'N, 107°23'W; sounding, 1910 fm; wind, 200°, 12 kt; weather, moderate drizzle; sea, rough; wire angle, 32°.										
0	27.58	33.12	4.43	664	0	27.58	33.12	4.43	666	666	0.00
37	27.30	33.43	4.58	634	10	27.54	33.20	4.45	658	659	0.07
49	26.10	34.23	4.84	541	20	27.49	33.26	4.48	653	653	0.13
73	24.16	34.61	4.31	457	30	27.41	33.35	4.52	644	645	0.20
92	22.73	34.66	3.82	413	50	25.75	34.32	4.76	524	526	0.31
147	13.01	34.77	0.09	180	75	24.07	34.61	4.30	454	457	0.44
187	12.05	34.76	0.19	162	100	20.90	34.69	2.36	363	366	0.54
224	11.56	34.75	0.37	154	150	12.90	34.77	0.10	178	181	0.68
280	10.96	34.69	0.23	148	200	11.91	34.76	0.27	160	165	0.76
335	10.22	34.66	0.24	138	250	11.27	34.72	0.32	152	157	0.84
					300	10.68	34.67	0.24	145	152	0.92
6	STRANGER; August 18, 1958; 0150, 0423 GCT; 10°00'N, 107°23'W; sounding, 1500 fm; wind, 210°, 13 kt; weather, intermittent slight drizzle; sea, moderate; wire angle, 29°, 24°.										
0	27.83	33.28	4.38	661	0	27.83	33.28	4.40	662	662	0.00
42	27.27	33.96	4.39	594	10	27.75	33.54	4.41	640	641	0.07
72	17.24	34.69	0.78	274	20	27.60	33.70	4.39	624	625	0.13
93	14.98	34.72	0.36	222	30	27.47	33.81	4.38	612	614	0.19
113	13.64	34.78	0.18	191	50	25.45	34.14	4.06	528	530	0.30
184	12.07	34.81	0.39	159	75	16.92	34.70	0.66	266	268	0.40
246	11.42	34.71	0.36	155	100	14.22	34.81	0.26	200	203	0.46
1267	3.50	34.53	1.17	60	150	12.80	34.81	0.31	173	176	0.56
1619	2.71	34.58	1.69	50	200	11.95	34.76	0.32	161	165	0.64
					250	11.37	34.73	0.32	152	158	0.72
0	27.84	33.37	4.40	656	300	10.54	34.72	0.37	139	146	0.80
45	26.55	34.05	4.48	567	400	9.41	34.62	0.28	128	136	0.94
64	21.05	34.43	1.91	386	500	7.86	34.53	0.12	112	120	1.07
85	15.94	34.73	0.44	242	600	6.80	34.51	0.08	99	108	1.18
107	13.73	34.81	0.23	191	700	6.00	34.51	0.15	89	98	1.29
184	12.20	34.79	0.33	163	800	5.17	34.52	0.43	79	88	1.38
249	11.39	34.73	0.31	152	1000	4.31	34.52	0.81	69	79	1.55
315	10.29	34.72	0.36	134	1200	3.67	34.53	1.11	62	72	1.70
382	9.68	34.66	0.32	129	1500	3.02	34.56	1.50	54	65	1.90
522	7.54	34.52	0.11	108							
668	6.26	34.51	0.08	92							

a) Alternate value, 0.23 ml/L.

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	δ_T	Z	T	S	O_2	δ_T	δ	ΔD
m	°C	‰	ml/L	cl/ton	m	°C	‰	ml/L	cl/ton	cl/ton	dyn m

7

STRANGER; August 18, 1958; 1517 GCT; 9°00'N, 106°57.5'W; sounding, 1900 fm; wind, 210°, 9 kt; weather, overcast; sea, very rough; wire angle, 30°.

0	27.44	33.01	4.56	669	0	27.44	33.01	4.56	669	669	0.00
31	27.46	33.21	4.44	654	10	27.44	33.07	4.52	665	665	0.07
47	25.90	34.33	4.49	528	20	27.45	33.14	4.48	660	661	0.13
71	23.87	34.69	4.16	442	30	27.46	33.20	4.45	656	657	0.20
92	19.90	34.55	2.12	348	50	25.44	34.48	4.47	503	505	0.32
170	12.20	34.76	0.31	165	75	23.46	34.66	4.15	434	436	0.43
232	11.39	34.70	0.35	154	100	17.50	34.69	1.15	280	283	0.52
292	10.84	34.70	0.33	146	150	12.73	34.76	0.32	175	179	0.64
350	10.14	34.67	0.56	137	200	11.77	34.72	0.34	160	165	0.72
487	8.01	34.54	0.23	113	250	11.18	34.70	0.33	151	157	0.80
623	6.47	34.49	0.16	96	300	10.74	34.70	0.35	144	151	0.88
741	5.63	34.47	0.23	87	400	9.40	34.62	0.44	128	136	1.03
859	4.78	34.49	0.65	77	500	7.83	34.53	0.22	111	120	1.15
978	4.44	34.50	1.16	72	600	6.68	34.50	0.17	98	107	1.27
1175	3.76	34.54	1.31	63	700	5.89	34.47	0.18	91	100	1.37
1382	3.27	34.52	1.51	59	800	5.18	34.48	0.42	82	91	1.47
1694	2.63	34.56	1.85	51	1000	4.38	34.50	1.19	72	82	1.64
					1200	3.67	34.53	1.35	62	72	1.79
					1500	3.01	34.53	1.66	56	67	2.00

8

STRANGER; August 19, 1958; 0123, 0255 GCT; 8°00'N, 106°57.5'W; sounding, 2100 fm; wind, 210°, 18 kt; weather, partly cloudy; sea, rough; wire angle, 29°, 35°.

0	27.24	33.62	4.49	619	0	27.24	33.62	4.49	619	619	0.00
63	26.98	33.80	4.51	598	10	27.21	33.64	4.49	617	617	0.06
71	25.75	34.56	4.27	506	20	27.18	33.67	4.50	614	614	0.12
93	23.54	34.72	4.06	431	30	27.14	33.70	4.50	610	611	0.18
127	15.10	34.67	0.84	228	50	27.03	33.76	4.51	602	604	0.31
179	12.30	34.74	0.48	169	75	25.43	34.62	4.26	493	496	0.44
240	10.97	34.71	0.52	147	100	21.57	34.71	3.03	379	382	0.55
304	10.28	34.70	0.63	136	150	13.70	34.73	0.62	196	200	0.70
368	9.73	34.63	0.45	132	200	11.68	34.73	0.48	158	163	0.79
506	8.22	34.57	0.13	114	250	10.83	34.71	0.55	145	150	0.87
642	6.50	34.51	0.23	95	300	10.31	34.70	0.62	137	143	0.94
762	5.67	34.49	0.43	86	400	9.42	34.61	0.38	129	137	1.08
882	5.03	34.52	0.57	77	500	8.32	34.57	0.14	115	124	1.21
1003	4.50	34.52	0.84	71	600	7.07	34.53	0.18	101	110	1.33
1211	3.74	-	1.22		700	6.03	34.49	0.36	91	100	1.43
					800	5.46	34.50	0.46	83	93	1.53
1255	3.67	34.56	1.20	60	1000	4.50	34.52	0.84	71	82	1.71
1480	3.04	34.55	1.31	56	1200	3.78	34.56	1.22	61	71	1.86
1665	2.70	34.61	1.99	47	1500	3.00	34.55	1.45	55	65	2.06
1816	2.38	34.58	2.19	47							

9

STRANGER; August 19, 1958; 1249 GCT; 7°00'N, 107°21'W; sounding, missing; wind, 200°, 14 kt; weather, overcast; sea, very rough; wire angle, 18°.

0	26.82	34.17	4.60	567	0	26.82	34.17	4.60	567	567	0.00
91	25.62	34.40	4.23	515	10	26.80	34.18	4.58	565	566	0.06
114	19.65	34.76	2.85	326	20	26.72	34.19	4.57	565	566	0.11
135	15.60	34.64	1.97	241	30	26.61	34.21	4.54	557	559	0.17
153	14.27	34.61	1.58	216	50	26.39	34.25	4.47	548	550	0.28
188	11.93	34.64	1.37	169	75	26.00	34.32	4.34	531	534	0.42
259	10.63	34.70	1.37	142	100	23.75	34.58	3.71	447	451	0.54
328	9.88	34.68	0.84	131	150	14.34	34.61	1.62	218	222	0.71
397	9.42	34.65	0.57	126	200	11.63	34.66	1.40	162	167	0.80
552	7.91	34.58	0.30	109	250	10.75	34.70	1.40	144	150	0.88
707	6.39	34.64r	0.43	(84)	300	10.12	34.69	1.02	134	141	0.96
842	5.54	34.54	0.67	81	400	9.40	34.65	0.55	126	134	1.09
978	4.84	34.51	0.74	76	500	8.51	34.59	0.36	117	126	1.22
1115	4.18	34.52	0.90	68	600	7.30	34.56	0.31	102	112	1.34
1344	3.36	34.56	1.50	57	700	6.40	34.56	0.42	90	100	1.45
1574	2.91	34.57	1.87	52	800	5.77	34.54	0.62	84	94	1.54
1901	2.32	34.59	2.16	46	1000	4.70	34.51	0.77	74	85	1.72
					1200	3.83	34.54	1.11	63	74	1.88
					1500	3.06	34.57	1.77	54	64	2.09

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	δ_T	Z	T	S	O_2	δ_T	δ	ΔD
m	°C	‰	ml/L	cl/ton	m	°C	‰	ml/L	cl/ton	cl/ton	dyn m
10	STRANGER; August 19, 1958; 2315 GCT; 6°00'N, 107°26'W; sounding, 2155 fm; wind, 190°, 18 kt; weather, overcast; sea, high; wire angle, 45°.										
6	26.64	34.09	4.45	567	0	(26.64)	(34.09)	(4.45)	(567)	(567)	(0.00)
41	25.94	34.20	4.55	538	10	26.58	34.10	4.46	564	565	0.06
51	25.46	34.22	4.61	522	20	26.42	34.12	4.48	558	559	0.11
84	24.20	34.60	4.15	459	30	26.21	34.15	4.50	550	551	0.17
116	21.23	34.72	3.54	369	50	25.48	34.22	4.61	523	525	0.28
151	16.18	34.64	1.87	253	75	24.67	34.43	4.37	484	487	0.40
187	13.65	34.61	1.54	204	100	22.72	34.66	3.71	413	417	0.52
235	11.22	34.67	1.68a)	154	150	16.20	34.64	1.88	254	259	0.68
277	10.51	34.65	1.15	143	200	12.72	34.64	1.63	184	188	0.80
397	9.24	34.64	0.50	124	250	10.91	34.66	1.43	150	155	0.88
514	7.96	34.58	0.23	109	300	10.28	34.65	1.01	140	146	0.96
620	6.98	34.54	0.38	99	400	9.21	34.64	0.47	124	131	1.10
726	6.10	34.52	0.51	90	500	8.10	34.59	0.23	111	120	1.22
836	5.33	34.52	0.55	80	600	7.15	34.55	0.33	100	110	1.34
1023	4.42	34.50	1.09	72	700	6.31	34.52	0.51	92	102	1.44
1224	3.69	34.54	1.46	61	800	5.57	34.52	0.54	83	93	1.54
1528	2.91	34.54	1.85	54	1000	4.50	34.50	1.02	73	83	1.72
					1200	3.78	34.54	1.42	63	73	1.87
					1500	2.99	34.54	1.84	55	66	2.08
11	STRANGER; August 20, 1958; 1113, 1247 GCT; 4°55'N, 106°57'W; sounding, 2105 fm; wind, 180°, 18 kt; weather, cloudy; sea, very rough; wire angle, 39°, 33°.										
6	24.80	34.30	4.65	497	0	(24.80)	(34.30)	(4.65)	(498)	(498)	(0.00)
64	24.68	34.28	4.30	495	10	24.79	34.30	4.60	497	498	0.05
74	23.75	34.42	4.61	459	20	24.77	34.29	4.37	497	498	0.10
92	23.58	34.52	4.52	447	30	24.74	34.29	4.34	496	498	0.15
123	22.52	34.72	4.36	403	50	24.70	34.28	4.30	496	498	0.25
170	15.36	34.84	1.81	221	75	23.74	34.42	4.60	459	462	0.37
210	13.14	34.87	1.29	175	100	23.50	34.53	4.50	444	448	0.49
255	12.33	34.85	0.77	161	150	18.30	34.80	2.66	291	296	0.67
311	11.20	34.71	0.91	151	200	13.57	34.87	1.43	183	188	0.79
438	9.48	34.63	0.44	128	250	12.40	34.85	0.78	162	168	0.88
574	7.38	34.51	0.20	106	300	11.41	34.73	0.92	153	160	0.96
699	6.12	34.52	0.52	90	400	9.98	34.66	0.56	134	143	1.11
828	5.32	34.48	0.76	83	500	8.51	34.57	0.25	118	127	1.25
958	4.63	34.47	1.09	76	600	7.12	34.51	0.25	103	113	1.37
					700	6.11	34.52	0.53	90	99	1.47
992	4.42	34.47	1.21	74	800	5.53	34.49	0.69	85	95	1.57
1125	4.02	34.49	1.42	69	1000	4.40	34.47	1.24	74	84	1.75
1349	3.42	34.52	1.58	61	1200	3.82	34.50	1.47	66	76	1.91
1577	2.90	34.56	1.95	53	1500	3.00	34.56	1.90	54	64	2.12
1904	2.44	34.57	2.18	49							

a) Alternate value, 1.73 ml/L.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m

2

SPENCER F. BAIRD; April 25, 1958; 1905 GCT; 25°26'N, 119°09.5'W; sounding, 2200 fm; wind, 350°, force 3; weather, cloudy; sea, moderate; wire angle, 15°.a)

0	19.08	34.14	4.93	0	19.08	34.14	4.93	24.36	358	0.00
11	19.06	34.14	4.98	10	19.07	34.14	4.97	24.37	357	0.04
31	18.98	34.14	4.94	20	19.02	34.14	4.96	24.38	356	0.07
54	18.60	34.14	4.97	30	18.99	34.14	4.95	24.39	355	0.11
69	18.56	34.22	4.95	50	18.63	34.14	4.96	24.47	347	0.18
82	18.40	34.20	4.88	75	18.47	34.21	4.90	24.57	338	0.26
97	15.00	33.78	4.88	100	14.30	33.76	4.80	25.18	279	0.34
122	13.39	33.73	4.60							

4

SPENCER F. BAIRD; April 26, 1958; 1525 GCT; 23°10'N, 119°42'W; sounding, 2095 fm; wind, 010°, force 3; weather, cloudy; sea, rough; wire angle, 20°.

0	20.25	34.45	5.15	0.38	0	20.25	34.45	5.15	24.30	364	0.00
9	20.24	34.43	5.30	0.42	10	20.24	34.43	5.32	24.29	365	0.04
28	20.24	34.44	5.30	0.42	20	20.24	34.43	5.32	24.29	365	0.07
56	18.98	34.20	5.61	0.49	30	20.22	34.43	5.32	24.30	364	0.11
69	18.98	34.29	5.40	0.48b)	50	20.22	34.43	5.33	24.30	364	0.18
87	18.67	34.29	4.44	0.45	75	18.87	34.29	4.88	24.54	341	0.27
100	17.56	34.13	5.46	0.55	100	17.56	34.13	5.46	24.74	322	0.36
121	14.25	33.89	4.62	(0.004)b)	150	11.34	33.71	4.18	25.73	227	0.49
147	11.47	33.70	4.24	1.47b)	200	9.78	34.06	2.51	26.28	175	0.60
174	10.41	33.88	3.14	2.13b)	250	9.25	34.24	1.66	26.50	154	0.68
202	9.75	34.07	2.50	2.46	300	8.79	34.33	1.06	26.65	140	0.76
263	9.16	34.28	1.46	3.30b)	400	7.62	34.40	0.37	26.88	118	0.89
358	8.10	34.39	0.53	3.33b)	500	6.70	34.42	0.21	27.03	104	1.01
484	6.84	34.42	0.21	3.86b)	600	6.00	34.46	0.21	27.15	93	1.12
726	5.30	34.49	0.26	4.07	700	5.42	34.48	0.24	27.24	84	1.21
1077	3.97	34.54	0.44	4.17b)	800	4.98	34.50	0.29	27.30	78	1.30
					1000	4.25	34.53	0.40	27.41	68	1.46

6

SPENCER F. BAIRD; April 27, 1958; 1821 GCT; 21°13'N, 117°23'W; sounding, 2115 fm; wind, 360°, force 2; weather, cloudy; sea, rough; wire angle, 13°.

0	21.22	34.56	5.24	0.38	0	21.22	34.56	5.24	24.11	381	0.00
10	21.08	34.56	5.22	0.50	10	21.08	34.56	5.22	24.15	377	0.04
29	21.06	34.57	5.23	0.45	20	21.07	34.56	5.22	24.15	377	0.08
53	20.79	34.54	5.27	0.42c)	30	21.05	34.57	5.24	24.16	376	0.11
68	20.63	34.53	5.32	0.43	50	20.82	34.54	5.26	24.21	372	0.19
81	19.33	34.29	5.45	0.44	75	20.04	34.41	5.42	24.32	361	0.28
95	17.85	34.08	5.30	0.59	100	17.17	34.00	5.13	24.74	322	0.37
117	14.07	33.81	4.09	1.22	150	12.11	34.00	2.47	25.81	220	0.50
144	12.30	33.94	2.74	1.87c)	200	11.62	34.60	0.27	26.38	166	0.60
167	11.52	34.19	1.97	2.31	250	10.95	34.64	0.16	26.52	152	0.68
198	11.63	34.60	0.30	2.80	300	10.13	34.61	0.15	26.65	140	0.76
252	10.90	34.64	0.16	2.90c)	400	8.68	34.54	0.17	26.83	123	0.89
348	9.42	34.57	0.19	3.04	500	7.40	34.51	0.10	27.00	107	1.02
467	7.80	34.51	0.12	3.27	600	6.40	34.51	0.04	27.14	94	1.12
708	5.74	34.51	0.05	3.46	700	5.78	34.51	0.05	27.22	86	1.22
1045	4.15	34.54	0.58	3.51	800	5.28	34.52	0.16	27.28	80	1.32
					1000	4.35	34.54	0.49	27.40	68	1.48

a) The hydrographic and biological data collected by Tuna Oceanography Research (STOR) of Scripps Institution on Cruise TO-58-1 (SCOT Expedition) have been published in U. S. Fish and Wildlife Service Special Scientific Report--Fisheries No. 345.

b) Duplicate values: 69 m, 0.90; 121 m, (0.06); 147 m, 1.88; 174 m, 2.03; 263 m, 2.73; 358 m, 3.43; 484 m, 3.52; 1077 m, 3.79 µg at/L.

c) Duplicate values: 53 m, 0.49; 144 m, 1.78; 252 m, 2.81 µg at/L.

SIO

TO-58-1
SCOT

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
8	SPENCER F. BAIRD; April 28, 1958; 1848 GCT; 18°41'N, 114°53'W; sounding, 1983 fm; wind, 020°, force 3; weather, clear; sea, moderate; wire angle, 15°.										
0	24.08	34.34	4.66	0.36	0	24.08	34.34	4.66	23.14	475	0.00
9	23.97	34.36	4.78	0.39	10	23.95	34.36	4.76	23.19	469	0.05
29	22.52	34.48	4.94	0.38	20	23.24	34.43	4.89	23.46	444	0.09
57	21.42	34.51	4.86	0.30a)	30	22.45	34.48	4.96	23.72	419	0.14
71	20.95	34.47	5.02	0.31	50	21.45	34.51	5.10	24.01	391	0.22
89	19.30	34.26	5.12	0.42	75	20.67	34.43	5.08	24.17	375	0.31
103	16.47	34.05	3.52	1.33	100	17.17	34.09	4.08	24.80	316	0.40
125	13.60	34.08	2.19	2.05a)	150	12.82	34.51	1.40	26.07	195	0.53
151	12.83	34.52	0.51	2.77	200	12.05	34.68	0.13	26.36	168	0.62
178	12.58	34.67	0.15	2.94a)	250	11.39	34.71	0.08	26.50	154	0.70
210	11.86	34.69	0.13	2.98	300	10.80	34.70	0.05	26.60	145	0.78
273	11.14	34.72	0.05	3.08	400	9.41	34.61	0.05	26.76	130	0.92
371	9.82	34.63	0.05	3.16	500	7.90	34.55	0.07	26.95	111	1.05
502	7.86	34.55	0.07	3.41	600	6.85	34.53	0.09	27.09	98	1.17
747	5.66	34.52	0.19	3.54	700	5.98	34.52	0.16	27.20	88	1.27
1101	3.98	34.56	0.48	3.63	800	5.36	34.52	0.23	27.28	80	1.36
					1000	4.42	34.55	0.40	27.40	69	1.53
13	SPENCER F. BAIRD; April 29, 1958; 2205 GCT; 18°08.5'N, 114°32'W; sounding, 2020 fm; wind, 020°, force 3; weather, cloudy; sea, slight; wire angle, 25°.										
0	24.24	34.31	4.92	0.35	0	24.24	34.31	4.92	23.07	481	0.00
9	24.20	34.31	4.78	0.35	10	24.20	34.31	4.80	23.09	479	0.05
28	24.06	34.31	4.88	0.35	20	24.12	34.31	4.84	23.11	477	0.10
54	22.82	34.49	4.92	0.38	30	23.40	34.39	4.92	23.38	451	0.14
65	22.48	34.47	5.00	0.40	50	22.90	34.48	4.92	23.59	431	0.23
82	20.92	34.41	5.18	0.47	75	21.74	34.44	5.11	23.89	402	0.34
94	19.00	34.23	4.72	0.70	100	16.53	34.10	3.46	24.96	301	0.42
113	14.51	34.08	2.51	1.88	150	12.69	34.54	0.66	26.12	190	0.55
135	13.76	34.51	0.52	2.73	200	11.84	34.70	0.20	26.41	163	0.64
158	12.53	34.58	0.66	2.76	250	11.00	34.69	0.07	26.56	149	0.72
186	12.04b)	34.70	0.31	2.96	300	10.26	34.64	0.15	26.65	140	0.80
239	11.18	34.70	0.07	3.02	400	8.76	34.57	0.33	26.84	122	0.93
325	9.83	34.61	0.20	3.20	500	7.65	34.54	0.33	26.99	108	1.05
439	8.25	34.56	0.39	3.35	600	6.78	34.53	0.13	27.10	97	1.17
660	6.28	34.52	0.07	3.54	700	6.02	34.52	0.12	27.20	88	1.27
1000	4.49	34.53	0.46	3.64	800	5.47	34.52	0.25	27.26	82	1.36
					1000	4.49	34.53	0.46	27.38	71	1.53
15	SPENCER F. BAIRD; April 30, 1958; 1840 GCT; 15°28.5'N, 112°23'W; sounding, 1847 fm; wind, 040°, force 2; weather, cloudy; sea, slight; wire angle, 08°.										
0	27.06	33.90	4.60	0.47c)	0	27.06	33.90	4.60	21.89	593	0.00
10	26.82	33.91	4.66	0.43c)	10	26.83	33.91	4.66	21.98	585	0.06
29	26.07	34.01	4.60	0.40	20	26.69	33.92	4.66	22.03	580	0.12
58	25.58	34.09	4.64	0.39	30	26.05	34.02	4.60	22.30	554	0.17
73	24.45	34.13	4.62	0.46	50	25.72	34.07	4.62	22.45	540	0.28
91	21.66	34.42	2.95	1.30	75	24.16	34.14	4.53	22.96	491	0.41
105	18.29	34.48	1.16	2.11	100	19.47	34.47	1.70	24.52	343	0.52
128	14.78	34.67	0.00	2.80	150	13.28	34.77	0.00	26.18	185	0.64
157	13.10	34.78	0.00	2.88	200	12.26	34.81	0.02	26.42	162	0.73
184	12.58	34.84	0.03	2.90	250	11.56	34.78	0.00	26.53	152	0.81
217	11.94	34.78	0.00	2.93	300	10.70	34.72	0.00	26.63	142	0.89
281	11.00	34.74	0.00	3.00	400	9.34	34.65	0.00	26.81	125	1.03
384	9.54	34.66	0.00	3.19	500	8.04	34.57	0.00	26.96	111	1.16
521	7.74	34.56	0.00	3.41	600	6.94	34.54	0.01	27.08	99	1.27
773	5.76	34.52	0.08	3.50	700	6.16	34.52	0.04	27.18	90	1.38
1135	4.04	34.56	0.61	3.41c)	800	5.60	34.52	0.09	27.24	84	1.47
					1000	4.68	34.54	0.40	27.37	72	1.65

a) Duplicate values: 57 m, 0.40; 125 m, 1.97; 178 m, 2.86 µg at/L.
b) Alternate value, 11.81°C, uncertain.
c) Duplicate values: 0 m, 0.35; 10 m, 0.35; 1135 m, 3.60 µg at/L.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
SPENCER F. BAIRD; May 1, 1958; 1745 GCT; 13°03'N, 110°44'W; sounding, 2230 fm; wind, 050°, force 3; weather, partly cloudy; sea, moderate; wire angle, 05°.											17
0	28.78	33.84	4.21	0.30	0	28.78	33.84	4.21	21.29	651	0.00
10	28.68	33.86	4.27	0.37a)	10	28.68	33.86	4.27	21.33	646	0.06
29	28.49	33.82	4.00	0.32	20	28.60	33.84	4.08	21.35	645	0.13
59	28.09	33.84	4.20	0.33	30	28.48	33.82	4.02	21.37	642	0.19
73	27.24	33.86	4.60	0.44a)	50	28.26	33.83	4.12	21.45	635	0.32
93	25.43	34.14	3.86	0.72	75	27.10	33.86	4.62	21.86	597	0.48
106	21.88	34.45	2.27	1.50	100	23.50	34.28	3.30	23.27	462	0.61
129	15.62	34.70	0.20	2.62	150	13.39	34.77	0.00	26.16	186	0.76
156	13.18	34.78	0.00	2.66a)	200	12.00	34.81	0.00	26.46	158	0.85
183	12.39	34.83	0.00	2.81a)	250	11.30	34.77	0.00	26.57	148	0.93
215	11.76	34.79	0.00	2.81	300	10.68	34.74	0.00	26.65	140	1.00
279	10.99	34.76	0.00	2.90	400	9.20	34.64	0.00	26.83	123	1.14
384	9.42	34.65	0.00	3.17	500	7.90	34.61	0.00	27.00	107	1.26
520	7.64	34.60	0.00	3.45	600	6.85	34.58	0.00	27.13	94	1.37
771	5.66	34.56	0.00	3.58	700	6.08	34.57	0.00	27.22	86	1.47
1128p	4.06	34.60	0.51	3.60	800	(5.52)	(34.56)	(0.00)	(27.29)	(79)	(1.56)
					1000	(4.62)	(34.58)	(0.30)	(27.40)	(69)	(1.73)
SPENCER F. BAIRD; May 3, 1958; 1403 GCT; 10°14'N, 109°13.5'W; sounding, 1500 fm; wind, 080°, force 3; weather, partly cloudy; sea, moderate; wire angle, 32°.											23
0	29.58	33.46	3.33	0.26	0	29.58	33.46	3.33	20.75	704	0.00
8	29.58	33.44	3.40	0.30	10	29.60	33.45	3.40	20.73	706	0.07
25	29.60	33.46	3.43	0.33	20	29.60	33.45	3.42	20.73	706	0.14
46	28.91	33.84	3.42	0.35	30	29.55	33.58	3.47	20.84	694	0.21
53	28.68	33.81	4.47	0.32	50	28.90	33.83	3.53	21.26	654	0.34
61	28.72	34.04	4.44	0.37	75	26.80	33.92	4.30	21.99	584	0.50
73	27.31	33.89	4.40	0.39	100	20.10	34.53	1.84	24.40	354	0.62
82	24.95	34.02	3.58	0.86	150	12.83	34.85	0.00	26.33	170	0.74
99	20.38	34.51	1.95	1.74	200	11.69	34.76	0.00	26.48	156	0.82
116	16.23	34.72	0.36	2.42	250	11.10	34.73	0.00	26.57	148	0.90
138	13.16	34.81	0.00	2.72	300	10.38	34.71	0.00	26.68	137	0.97
174	12.04	34.78	0.00	2.81b)	400	9.12	34.64	0.00	26.84	122	1.11
237	11.26	34.74	0.00	2.77	500	7.80	34.58	0.00	26.99	107	1.23
310	10.22	34.70	0.00	3.00	600	6.75	34.55	0.00	27.13	95	1.34
507	7.70	34.58	0.00	3.40	700	6.08	34.53	0.00	27.19	88	1.44
734	5.90	34.53	0.00	3.58							
SPENCER F. BAIRD; May 4, 1958; 1755 GCT; 10°22'N, 106°56'W; sounding, 1870 fm; wind, 050°, force 4; weather, partly cloudy; sea, moderate; wire angle, 25°.											28
0	29.49	33.84	3.88	0.31	0	29.49	33.84	3.88	21.06	674	0.00
8	29.44	33.82	3.91	0.34	10	29.44	33.83	3.92	21.06	674	0.07
27	29.44	33.83	3.93	0.35	20	29.43	33.83	3.93	21.06	674	0.13
53	29.06	34.09	3.99	0.34	30	29.40	33.87	3.97	21.11	669	0.20
65	28.20	34.12	4.44	0.38	50	29.06	34.09	4.04	21.38	643	0.33
81	23.84	34.22	3.66	0.99	75	26.00	34.14	4.21	22.41	544	0.48
92	19.42	34.60	1.70	1.92c)	100	16.02	34.65	0.78	25.49	250	0.58
111	14.81	34.79	0.19	2.52	150	12.38	34.83	0.32	26.41	163	0.68
131	12.92	34.87	0.18	2.62c)	200	11.71	34.80	0.30	26.51	153	0.76
154	12.30	34.83	0.35	2.56	250	11.18	34.78	0.38	26.59	146	0.84
178	11.96	34.81	0.29	2.64	300	10.63	34.75	0.39	26.66	139	0.92
232	11.38	34.79	0.36	2.66	400	9.77	34.71	0.44	26.79	127	1.06
312	10.54	34.74	0.39	2.63	500	8.62	34.65	0.38	26.91	115	1.18
425	9.52	34.70	0.49	2.91	600	7.44	34.59	0.09	27.05	102	1.30
648	6.96	34.57	0.00	3.13c)	700	6.55	34.56	0.10	27.16	92	1.41
982	4.72	34.56	1.03	2.74	800	5.88	34.56	0.41	27.24	84	1.51
					1000	(4.60)	(34.56)	(1.09)	(27.39)	(69)	(1.68)

a) Duplicate values: 10 m, 0.30; 73 m, 0.51; 156 m, 2.77; 183 m, 2.74 µg at/L.
b) Duplicate value, 2.74 µg at/L.
c) Duplicate values: 92 m, 1.82; 131 m, 2.54; 648 m, 2.89 µg at/L.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
30	SPENCER F. BAIRD; May 5, 1958; 1743 GCT; 10°14'N, 103°53.5'W; sounding, 1600 fm; wind, 070°, force 2; weather, cloudy; sea, moderate; wire angle, 25°.										
0	29.83	33.96	4.26	0.42a)	0	29.83	33.96	4.26	21.03	676	0.00
9	29.65	33.94	4.42	0.36	10	29.64	33.94	4.44	21.07	672	0.07
27	28.70	33.77	4.34	0.36	20	29.51	33.90	4.45	21.09	669	0.13
48	27.10	33.89	4.28	0.42	30	28.43	33.78	4.32	21.35	646	0.20
57	24.40	34.23	3.69	0.80	50	26.72	33.95	4.25	22.05	578	0.32
65	22.02	34.29	2.27	1.56a)	75	20.00	34.50	1.48	24.40	354	0.44
79	19.25	34.61	1.28	1.98	100	15.83	34.75	0.45	25.62	238	0.52
89	17.18	34.72	0.74	1.52a)	150	13.01	34.84	0.29	26.28	175	0.62
115	14.56	34.79	0.26	2.44	200	12.07	34.84	0.41	26.47	157	0.70
137	13.40	34.81	0.27	2.47	250	11.44	34.82	0.41	26.57	147	0.78
170	12.60	34.85	0.33	2.40a)	300	10.93	34.79	0.19	26.65	140	0.86
223	11.77	34.83	0.46	2.48	400	9.70	34.71	0.01	26.80	126	1.00
315	10.76	34.78	0.11	2.69	500	8.48	34.65	0.00	26.95	112	1.12
427	9.34	34.69	0.00	2.98a)	600	7.36	34.61	0.03	27.08	99	1.24
709	6.16	34.57	0.10	3.22a)	700	6.25	34.57	0.08	27.20	88	1.34
975	4.74	34.58	0.48	3.42	800	5.48	34.57	0.24	27.29	80	1.44
					1000	(4.64)	(34.58)	(0.50)	(27.40)	(68)	(1.60)
32	SPENCER F. BAIRD; May 6, 1958; 1740 GCT; 10°07.5'N, 100°40.5'W; sounding, 1878 fm; wind, 070°, force 3; weather, partly cloudy; sea, moderate; wire angle, 00°.										
0	29.78	33.53	4.28	0.28	0	29.78	33.53	4.28	20.73	705	0.00
10	29.65	33.55	4.20	0.32	10	29.65	33.55	4.20	20.78	700	0.07
30	29.63	33.62	4.28	0.33	20	29.64	33.59	4.23	20.82	696	0.14
60	29.33	34.15	4.33	0.38	30	29.63	33.62	4.28	20.85	694	0.21
75	28.02	34.34	4.23	0.43	50	29.43	34.02	4.31	21.19	660	0.34
94	22.04	34.59	3.27	1.05	75	28.02	34.34	4.23	21.91	592	0.50
109	18.48	34.73	2.19	1.82	100	19.35	34.70	2.46	24.74	322	0.62
133	14.78	34.81	1.35	2.61	150	13.59	34.83	1.26	26.16	186	0.74
161	13.02	34.85	1.20	2.60	200	12.39	34.87	1.17	26.43	161	0.83
189	12.54	34.86	1.29	2.58b)	250	11.85	34.85	0.53	26.52	152	0.91
221	12.18	34.88	0.83	2.66	300	11.28	34.78	0.27	26.57	148	0.99
285	11.43	34.79	0.33	2.68	400	9.90	34.74	0.00	26.79	127	1.13
388	10.10	34.75	0.00	3.04	500	8.14	34.63	0.00	26.97	110	1.26
523	7.77	34.60	0.00	3.49	600	6.90	34.58	0.03	27.12	95	1.37
780	5.52	34.58	0.17	3.63	700	6.07	34.58	0.11	27.23	85	1.47
1143	3.88	34.59	0.70	3.49	800	5.42	34.58	0.17	27.31	77	1.56
					1000	4.48	34.58	0.49	27.42	67	1.72
34	SPENCER F. BAIRD; May 7, 1958; 1743 GCT; 9°44'N, 97°14'W; sounding, 2078 fm; wind, 080°, force 1; weather, cloudy; sea, rough; wire angle, 03°.										
0	29.70	33.98	4.28	0.40	0	29.70	33.98	4.28	21.08	670	0.00
5	29.58	33.96	4.25	0.40	10	29.54	33.96	4.29	21.12	667	0.07
10	29.54	33.96	4.29	0.38	20	29.50	33.96	4.26	21.15	665	0.13
20	29.50	33.96	4.26	0.40	30	26.28	34.02	4.58	22.23	561	0.20
25	27.91	33.89	4.71	0.40	50	20.60	34.55	2.37	24.28	365	0.29
35	24.86	34.14	4.17	0.74	75	15.29	34.76	0.83	25.74	227	0.36
55	19.04	34.67	1.77	1.86	100	14.00	34.88	0.36	26.11	191	0.42
74	15.37	34.76	0.85	2.33c)	150	12.65	34.87	0.30	26.38	166	0.50
99	14.01	34.88	0.36	2.41c)	200	11.61	34.78	0.49	26.51	153	0.59
160	12.06	34.80	0.55	2.44c)	250	11.09	34.77	0.37	26.61	144	0.66
304	10.45	34.75	0.22	2.81c)	300	10.50	34.75	0.25	26.70	136	0.74
416	8.73	34.65	0.04	3.33	400	8.98	34.66	0.03	26.88	118	0.87
631	6.13	34.58	0.03	3.62	500	7.44	34.61	0.00	27.06	101	0.99
833	5.00	34.54	0.33	3.62c)	600	6.42	34.58	0.01	27.20	88	1.09
1030	4.16	34.58	0.65	3.51c)	700	5.75	34.57	0.12	27.26	82	1.19
1140	3.76	34.58	0.83	3.54	800	5.18	34.54	0.28	27.31	77	1.27
					1000	4.28	34.57	0.60	27.44	65	1.44

a) Duplicate values: 0 m, 0.34; 65 m, 1.49; 89 m, 2.16; 170 m, 2.48; 427 m, 3.14; 709 m, 3.34 µg at/L.
b) Duplicate value, 2.36 µg at/L.
c) Duplicate values: 74 m, 2.40; 99 m, 2.51; 160 m, 2.53; 304 m, 2.71; 833 m, 3.70; 1030 m, 3.58 µg at/L.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m

37

SPENCER F. BAIRD; May 9, 1958; 1650 GCT; 5°10'N, 95°53.5'W; sounding, 2328 fm; wind, 180°, force 3; weather, drizzle; sea, rough; wire angle, 09°.

0	29.32	32.12	3.84	0.32a)	0	29.32	32.12	3.84	19.82	792	0.00
5	29.31	32.10	3.89	–	10	29.34	32.09	4.11	19.80	795	0.08
10	29.34	32.09	4.11	0.34	20	29.44	32.82	4.59	20.30	746	0.16
20	29.44	32.82	4.59	0.36	30	28.16	33.59	4.58	21.30	650	0.23
25	29.14	33.58	4.56	0.40	50	22.13	34.68	3.27	23.96	396	0.33
35	27.60	33.76	4.61	0.46	75	17.77	34.95	1.87	25.31	267	0.42
53	21.98	34.72	3.21	1.11	100	15.80	34.95	1.46	25.78	223	0.48
72	18.06	34.95	1.96	1.66	150	13.80	34.93	1.01	26.19	184	0.58
95	16.14	34.95	1.56	1.76	200	13.28	34.90	0.86	26.28	175	0.67
146	13.90	34.93	1.05	2.11	250	12.74	34.86	0.68	26.36	168	0.76
290	12.26	34.83	0.56	2.43a)	300	12.12	34.82	0.53	26.45	159	0.84
384	10.64	34.72	0.44	2.68	400	10.40	34.71	0.40	26.68	137	1.00
575	7.28	34.59	0.00	3.29	500	8.60	34.63	0.14	26.92	114	1.14
769	5.56	34.55	0.54	3.36	600	6.97	34.58	0.04	27.12	96	1.25
960	4.60	34.54	1.11	3.17	700	6.06	34.56	0.33	27.22	86	1.35
1065	4.20	34.56	1.34	2.76a)	800	5.37	34.55	0.65	27.29	79	1.44
					1000	4.45	34.55	1.22	27.40	69	1.61

38

SPENCER F. BAIRD; May 10, 1958; 0211 GCT; 4°15'N, 95°52'W; sounding, 1870 fm; wind, 180°, force 4; weather, cloudy; sea, rough; wire angle, 21°.

0	29.02	31.83	4.61u	0.27	0	29.02	31.83		19.70	803	0.00
4	29.00	31.82	3.18	0.31	10	29.01	31.82	3.39	19.70	804	0.08
9	29.02	31.82	3.40	0.30	20	29.10	31.83	3.50	19.68	806	0.16
16	29.05	31.82	3.15	0.30	30	27.40	32.74	3.73	20.90	687	0.24
23	29.10	31.91	3.79	0.30	50	21.20	34.55	2.95	24.13	379	0.34
41	23.58	34.22	3.55	0.77	75	17.38	34.91	1.44	25.39	260	0.42
58	19.22	34.76	2.34	1.48	100	16.00	34.96	1.13	25.74	226	0.48
80	16.99	34.94	1.28	1.79	150	13.67	34.95	1.10	26.24	179	0.59
146	13.70	34.95	1.13	2.09	200	13.07	34.91	0.90	26.33	170	0.68
239	12.59	34.88	0.66	2.20b)	250	12.38	34.87	0.57	26.44	160	0.76
391	9.60	34.71	0.21	2.90	300	11.49	34.81	0.40	26.56	148	0.84
					400	(9.40)	(34.70)	(0.21)	(26.84)	(122)	(0.98)

39

SPENCER F. BAIRD; May 10, 1958; 0550 GCT; 4°49'N, 95°54'W; sounding, 1680 fm; wind, 140°, force 3; weather, overcast; sea, rough; wire angle, 19°.

0	29.20	32.17	4.40	0.28	0	29.20	32.17	4.40	19.90	785	0.00
4	29.19	32.19	4.30	0.31	10	29.23	32.18	4.24	19.90	785	0.08
9	29.22	32.18	4.23	0.28	20	29.26	32.22	4.41	19.91	783	0.16
16	29.22	32.19	4.34	0.32	30	29.10	32.94	4.48	20.52	726	0.23
23	29.28	32.24	4.48	0.30	50	23.47	34.46	4.21	23.40	449	0.35
41	24.68	34.14	4.40	0.62	75	17.65	34.97	2.23	25.36	263	0.44
59	20.37	34.76	2.98	1.03	100	15.92	35.00	1.77	25.79	222	0.50
82	17.02	35.01	2.01	1.60c)	150	14.17	34.96	1.48	26.14	188	0.60
154	14.03	34.95	1.46	2.06	200	13.30	34.93	1.15	26.30	174	0.70
252	12.59	34.90	0.75	2.16c)	250	12.60	34.90	0.77	26.42	162	0.78
409	10.32	34.74	0.25	2.76	300	11.89	34.86	0.48	26.52	152	0.87
					400	10.46	34.75	0.26	26.70	136	1.02

a) Duplicate values: 0 m, 0.39; 290 m, 2.36; 1065 m, 3.17 µg at/L.
b) Duplicate value, 2.44 µg at/L.
c) Duplicate values: 82 m, 1.33; 252 m, 2.44 µg at/L.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
40	SPENCER F. BAIRD; May 10, 1958; 0928 GCT; 5°24'N, 95°55'W; sounding, 1900 fm; wind, 210°, force 1; weather, overcast; sea, slight; wire angle, 08°.										
0	29.20	32.02	4.55	0.38	0	29.20	32.02	4.55	19.78	796	0.00
5	29.20	32.03	4.48	0.35	10	29.22	32.06	4.58	19.82	793	0.08
10	29.22	32.06	4.58	0.32	20	29.22	33.65	4.70	21.00	679	0.16
18	29.24	33.33	4.71	0.37	30	25.50	34.29	4.63	22.64	522	0.22
25	29.58	34.16	4.88	0.40	50	23.00	34.66	3.92	23.70	420	0.32
44	24.55	34.54	4.46	0.67	75	18.57	34.97	2.40	25.14	284	0.41
64	19.41	34.93	2.68	1.47	100	16.53	35.00	1.80	25.65	235	0.47
87	17.32	34.99	2.00	1.71	150	14.13	34.99	1.38	26.18	185	0.58
162	13.78	34.98	1.33	2.00	200	13.30	34.96	1.18	26.32	171	0.67
261	12.50	34.92	0.85	2.23	250	12.66	34.93	0.92	26.43	161	0.76
421	9.92	34.76	0.21	2.34	300	11.93	34.88	0.65	26.54	151	0.84
					400	10.27	34.78	0.28	26.76	130	0.99
41	SPENCER F. BAIRD; May 10, 1958; 1257 GCT; 5°58'N, 95°56'W; sounding, 1950 fm; wind, 240°, force 1; weather, overcast; sea, moderate; wire angle, 13°.										
0	29.24	32.17	4.40	0.33	0	29.24	32.17	4.40	19.88	787	0.00
5	29.26	32.18	4.45	0.36	10	29.34	32.23	4.58	19.90	784	0.08
10	29.34	32.23	4.58	0.32							
17	28.92	33.58	4.50	0.40							
42a)	25.52	34.53	-	-							
62	21.58	34.85	-	-							
137	14.02	34.94	-	-							
238	12.79	34.88	-	-							
395	10.64	34.74	-	-							
42	SPENCER F. BAIRD; May 10, 1958; 1641 GCT; 6°35.5'N, 95°57'W; sounding, 1915 fm; wind, direction missing, force 1; weather, overcast; sea, moderate; wire angle, 19°.										
0	29.66	33.12	4.44	0.34	0	29.66	33.12	4.44	20.46	731	0.00
4	29.64	33.10	4.50	0.36	10	29.62	33.20	4.46	20.53	724	0.07
9	29.64	33.19	4.45	0.34	20	29.20	33.58	4.53	20.95	684	0.14
19	29.24	33.57	4.53	0.35	30	28.20	33.62	4.62	21.33	648	0.21
23	29.03	33.58	4.55	0.36	50	23.26	34.70	3.96	23.65	425	0.32
32	27.18	33.68	4.70	0.45	75	19.46	34.78	2.20	24.76	320	0.41
50	23.26	34.70	3.96	0.74	100	14.39	34.79	1.63	25.96	205	0.48
67	20.07	34.70	2.72	1.42	150	13.28	34.91	1.21	26.28	175	0.57
88	15.27	34.74	1.71	1.99b)	200	12.72	34.89	1.02	26.39	165	0.66
133	13.46	34.91	1.25	2.20	250	12.07	34.87	0.78	26.49	155	0.74
263	11.92	34.86	0.71	2.52	300	11.27	34.80	0.46	26.59	146	0.82
344	10.58	34.72	0.16	2.58	400	9.78	34.68	0.05	26.76	130	0.97
517	8.38	34.62	0.00	3.33	500	8.60	34.63	0.00	26.92	115	1.10
695	6.22	34.57	0.15	3.60	600	7.34	34.60	0.04	27.07	100	1.21
877	5.06	34.52	0.61	3.54	700	6.17	34.57	0.19	27.21	87	1.32
977	4.66	34.56	0.72	3.64	800	5.49	34.53	0.46	27.27	81	1.41
					1000	(4.57)	(34.58)	(0.72)	(27.42)	(67)	(1.58)
43	SPENCER F. BAIRD; May 11, 1958; 0040 GCT; 7°43'N, 95°57'W; sounding, 2050 fm; wind, 210°, force 3; weather, drizzle; sea, moderate; wire angle, 30°.										
0	30.40	33.63	3.91	0.34	0	30.40	33.63	3.91	20.63	715	0.00
4	30.39	33.66	3.95	0.38	10	30.38	33.68	3.40	20.68	710	0.07
8	30.39	33.68	3.39	0.36	20	29.90	33.85	4.51	20.92	687	0.14
15	30.17	33.81	4.11	0.37	30	27.78	34.02	4.64	21.76	606	0.21
21	29.86	33.86	4.59	0.19	50	20.80	34.60	2.24	24.26	367	0.30
37	26.38	34.08	4.65	0.32	75	15.30	34.74	0.57	25.72	228	0.38
49	21.06	34.58	2.37	1.50	100	13.18	34.80	0.36	26.23	180	0.43
64	16.80	34.70	0.84	2.30	150	12.15	34.80	0.48	26.44	160	0.52
117	12.63	34.82	0.31	2.62	200	11.38	34.77	0.81	26.56	149	0.60
200	11.38	34.77	0.81	2.54c)	250	10.82	34.74	0.70	26.62	143	0.67
346	9.99	34.69	0.41	2.93	300	10.35	34.71	0.53	26.69	136	0.74

a) Pretrip; depth too uncertain for interpolation.
b) Duplicate value, 1.88 µg at/L.
c) Duplicate value, 2.44 µg at/L.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m

44

SPENCER F. BAIRD; May 11, 1958; 0622 GCT; 7°12.5'N, 95°52.5'W; sounding, 2400+ fm; wind, 200°, force 2; weather, partly cloudy; sea, moderate; wire angle, 25°.

0	29.94	33.67	4.13	0.24a)	0	29.94	33.67	4.13	20.77	700	0.00
4	29.93	33.68	4.21	0.38	10	29.95	33.66	2.94	20.77	701	0.07
9	29.96	33.66	2.93	0.38	20	29.60	33.71	3.80	20.92	686	0.14
16	29.85	33.68	3.38	0.33	30	28.00	33.86	4.12	21.58	624	0.20
23	29.28	33.75	4.28	0.36	50	23.38	34.37	2.99	23.36	453	0.31
40	26.29	33.95	3.88	0.54	75	16.80	34.66	1.60	25.32	266	0.40
56	21.60	34.61	2.38	1.24	100	14.58	34.73	1.07	25.88	213	0.46
76	16.77	34.66	1.61	1.94	150	12.26	34.81	0.52	26.42	162	0.56
135	12.58	34.83	0.45	2.56a)	200	11.55	34.78	0.78	26.52	152	0.64
224	11.24	34.76	0.87	2.52	250	10.98	34.75	0.79	26.60	144	0.71
373	9.89	34.70	0.09	2.98	300	10.48	34.72	0.54	26.67	138	0.79

45

SPENCER F. BAIRD; May 11, 1958; 1656 GCT; 6°51.5'N, 94°29'W; sounding, 1940 fm; wind, 290°, force 3; weather, cloudy; sea, moderate; wire angle, 17°.

0	29.70	32.98	4.05	0.32	0	29.70	32.98	4.05	20.34	742	0.00
4	29.70	32.98	4.01	0.18	10	29.75	33.02	4.00	20.35	742	0.07
9	29.74	33.01	4.00	0.18	20	29.75	33.46	4.10	20.70	708	0.15
19	29.76	33.46	4.06	0.36	30	28.75	33.67	4.71	21.17	662	0.22
24	29.54	33.53	4.46	0.37	50	23.90	34.22	3.64	23.10	478	0.33
33	28.12	33.77	4.83	0.42	75	19.91	34.70	2.90	24.58	337	0.43
52	23.49	34.30	3.48	1.03	100	14.60	34.70	1.68	24.85	216	0.50
69	20.87	34.70	3.03	1.22	150	13.00	34.89	1.09	26.33	170	0.60
91	15.20	34.68	1.86	1.86b)	200	12.25	34.84	0.83	26.43	161	0.68
146	13.08	34.90	1.14	2.18	250	11.60	34.78	0.65	26.52	152	0.76
277	11.25	34.76	0.57	2.52	300	10.99	34.74	0.56	26.60	145	0.84
378	9.95	34.69	0.49	2.77	400	9.65	34.68	0.45	26.78	128	0.99
578	7.40	34.58	0.03	3.44	500	8.40	34.62	0.19	26.94	113	1.12
763	5.78	34.54	0.28	3.46	600	7.15	34.57	0.05	27.08	99	1.23
951	4.67	34.58u	0.78	3.45	700	6.25	34.55	0.18	27.19	89	1.34
1057	4.26	34.54u	0.93	3.34	800	5.54		0.37			
					1000	4.45		0.83			

47

SPENCER F. BAIRD; May 12, 1958; 1711 GCT; 8°01.5'N, 91°32'W; sounding, 2265 fm; wind, 250°, force 1; weather, partly cloudy; sea, moderate; wire angle, 12°.

0	29.82	33.89	4.38	0.37	0	29.82	33.89	4.38	20.97	681	0.00
10	29.60	33.90	4.31	0.40	10	29.60	33.90	4.31	21.06	673	0.07
29	27.49	33.92	4.76	0.40	20	29.43	33.90	4.33	21.12	668	0.13
53	22.22	34.40	2.76	1.35c)	30	27.37	33.93	4.57	21.82	601	0.20
63	20.61	34.68	2.49	1.41	50	25.05	34.21	3.92	22.75	511	0.31
72	18.33	34.72	1.25	1.89	75	17.70	34.74	0.99	25.16	282	0.41
89	15.99	34.78	0.61	2.27c)	100	15.30	34.79	0.51	25.78	223	0.47
103	15.13	34.79	0.49	2.29	150	12.83	34.86	0.40	26.32	171	0.57
136	13.20	34.83	0.39	2.34	200	11.98	34.83	0.41	26.48	156	0.66
162	12.62	34.87	0.41	2.38	250	11.27	34.79	0.18	26.58	146	0.73
202	11.98	34.83	0.41	2.48	300	10.61	34.75	0.05	26.67	138	0.81
264	11.06	34.78	0.08	2.64	400	9.38	34.68	0.08	26.83	123	0.95
372	9.78	34.70	0.09	2.77c)	500	7.60	34.61	0.00	27.05	102	1.07
502	7.58	34.61	0.00	3.45c)	600	6.58	34.59	0.09	27.16	92	1.17
820	5.08	34.57	0.36	3.45	700	5.77	34.58	0.23	27.25	83	1.27
1107	3.93	34.59	0.87	3.26c)	800	5.18	34.57	0.34	27.32	76	1.36
					1000	4.35	34.58	0.66	27.44	65	1.52

a) Duplicate values: 0 m, 0.15; 135 m, 2.46 µg at/L.
b) Duplicate value, 1.98 µg at/L.
c) Duplicate values: 53 m, 1.28; 89 m, 2.20; 372 m, 2.89; 502 m, 3.38; 1107 m, 3.19 µg at/L.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
49	SPENCER F. BAIRD; May 13, 1958; 2255 GCT; 9°48.5'N, 89°14.5'W; sounding, 1850 fm; wind, 040°, force 3; weather, partly cloudy; sea, rough; wire angle, 35°.										
0	28.40	34.52	4.65	0.44a)	0	28.40	34.52	4.65	21.93	590	0.00
2	28.40	34.52	4.55	0.47	10	27.27	34.52	4.51	22.29	555	0.06
5	28.42	34.52	4.88	0.45	20	18.30	34.72	3.20	25.01	296	0.10
7	28.26	34.52	4.63	0.48	30	16.27	34.78	0.93	25.54	245	0.13
10	27.27	34.52	4.51	0.50a)	50	14.45	34.82	0.76	25.98	204	0.17
12	25.10	34.57	5.52	0.50	75	13.36	34.86	0.74	26.24	179	0.22
15	21.21	34.57	4.88	0.68	100	12.87	34.86	0.83	26.33	170	0.27
22	17.78	34.75	2.86	1.54	150	12.35	34.82	0.60	26.40	164	0.35
28	16.56	34.77	1.25	2.02	200	11.81	34.79	0.48	26.48	156	0.43
33	15.96	34.81	0.84	2.07	250	11.18	34.76	0.61	26.58	146	0.51
38	15.26	34.83	0.79	2.25							
47	14.64	34.82	0.79	2.20							
63	13.78	34.86	0.69	2.29							
94	12.98	34.86	0.85	2.34							
168	12.16	34.81	0.45	2.44							
256	11.09	34.76	0.63	2.45							
50	SPENCER F. BAIRD; May 14, 1958; 1700 GCT; 7°42'N, 88°08'W; sounding, 1840 fm; wind, 180°, force 1; weather, partly cloudy; sea, moderate; wire angle, 23°.										
0	29.98	34.04	3.98	0.39	0	29.98	34.04	3.98	21.04	675	0.00
9	29.49	34.04	4.05	0.41	10	29.49	34.06	4.06	21.21	658	0.07
18	29.58	34.11	4.10	0.41	20	29.30	34.13	4.11	21.33	647	0.13
41	22.88	34.41	3.56	0.95	30	27.50	34.23	4.00	22.03	580	0.19
60	17.30	34.74	1.10	2.04	50	20.30	34.57	2.59	24.37	357	0.29
68	16.36	34.79	1.03	2.08	75	16.23	34.79	0.78	25.55	244	0.36
85	14.76	34.77	0.62	2.33	100	13.78	34.81	0.62	26.11	191	0.42
98	13.84	34.82	0.58	2.35	150	12.97	34.90	0.73	26.35	169	0.51
127	13.18	34.88	0.74	2.35	200	12.43	34.86	0.74	26.41	163	0.60
149	12.98	34.90	0.73	2.29	250	11.80	34.81	0.45	26.50	154	0.68
180	12.67b)	34.88	0.81	2.31	300	11.03	34.76	0.53	26.61	144	0.76
233	12.02	34.83	0.44	2.49	400	9.43	34.66	0.43	26.80	126	0.90
328	10.60	34.74	0.59	2.68	500	8.22	34.61	0.31	26.94	113	1.02
443	8.88	34.63	0.34	3.13	600	7.09	34.58	0.30	27.10	97	1.14
740	5.88	34.56	0.33	3.34	700	6.18	34.56	0.32	27.22	86	1.24
1025	4.50	34.52	0.77	3.32c)	800	5.52	34.55	0.42	27.28	80	1.33
					1000	4.60	34.52	0.73	27.37	72	1.51
56	SPENCER F. BAIRD; May 16, 1958; 1220 GCT; 5°31.5'N, 86°43'W; sounding, 1250 fm; wind, 180°, force 3; weather, overcast; sea, moderate; wire angle, 10°.										
0	28.96	32.31	4.11	0.24	0	28.96	32.31	4.11	20.10	766	0.00
5	28.95	32.30	4.21	0.30	10	29.12	32.38	4.14	20.08	767	0.08
10	29.12	32.38	4.14	0.30	20	29.82	33.04	4.23	20.34	742	0.15
20	29.82	33.04	4.23	0.32	30	27.86	33.57	4.44	21.37	643	0.22
24	28.66	33.40	4.48	0.38	50	22.80	34.72	3.21	23.82	409	0.33
34	27.22	33.73	4.38	0.47	75	18.81	34.76	2.05	24.90	306	0.42
53	21.82	34.76	3.00	1.16	100	15.70	34.78	1.47	25.67	233	0.48
72	19.28	34.76	2.17	1.50	150	13.43	34.90	0.78	26.25	178	0.59
95	16.54	34.75	1.61	1.85	200	12.72	34.86	0.63	26.39	164	0.67
123	14.12	34.86	1.01	2.05	250	11.70	34.80	0.56	26.50	154	0.76
155	13.36	34.91	0.76	2.20	300	10.86	34.74	0.53	26.62	143	0.83
299	10.87	34.74	0.53	2.58	400	9.04	34.64	0.11	26.85	121	0.97
412	8.80	34.63	0.04	3.00	500	7.73	34.61	0.14	27.03	104	1.09
627	6.67	34.59	0.29	3.29	600	6.88	34.59	0.26	27.14	94	1.20
941	4.80	34.56	0.94	3.18d)	700	6.16	34.58	0.45	27.22	86	1.30
1136	4.02	34.56	1.34	3.20	800	5.52	34.57	0.68	27.29	79	1.39
					1000	4.54	34.56	1.09	27.40	69	1.56

a) Duplicate values: 0 m, 0.36; 10 m, 0.43 µg at/L.
b) Alternate value, 12.52°C, uncertain.
c) Duplicate value, 3.42 µg at/L.
d) Duplicate value, 3.36 µg at/L.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m

58

SPENCER F. BAIRD; May 17, 1958; 1702 GCT; 5°34'N, 83°26'W; sounding, 1750 fm; wind, direction missing, force 1; weather, rain; sea, moderate; wire angle, 10°.

0	28.84	32.65	4.08	0.30	0	28.84	32.65	4.08	20.37	740	0.00
10	28.98	32.94	4.20	-	10	28.98	32.94	4.20	20.56	722	0.07
20	29.10	33.21	4.14	0.29	20	29.10	33.21	4.14	20.71	707	0.14
35	25.68	33.95	4.19	0.53	30	28.00	33.59	4.17	21.36	644	0.21
54	18.16	34.82	1.74	1.79	50	22.80	34.30	3.34	23.48	442	0.32
74	15.90	34.96	1.09	1.97	75	15.86	34.96	1.09	25.76	224	0.40
92	15.25	34.96	1.09	2.06	100	15.01	34.96	0.97	25.96	206	0.46
107	14.80	34.96	0.90	2.20	150	14.05	34.94	0.75	26.15	187	0.56
139	14.20	34.94	0.78	2.27a)	200	13.38	34.94	0.60	26.29	174	0.65
166	13.85	34.94	0.70	2.23	250	12.61	34.89	0.41	26.41	163	0.74
206	13.28	34.94	0.59	2.46a)	300	11.65	34.82	0.20	26.54	150	0.82
269	12.27	34.87	0.32	2.30a)	400	9.47	34.70	0.02	26.83	123	0.96
379	9.82	34.72	0.02	2.90a)	500	8.04	34.64	0.04	27.00	106	1.09
511	7.91	34.64	0.04	3.19	600	7.07	34.62	0.19	27.12	95	1.20
831	5.60	34.59	0.51	3.21a)	700	6.38	34.60	0.36	27.21	86	1.30
1120	4.21	34.60	1.08	3.14	800	5.77	34.59	0.48	27.28	80	1.39
					1000	4.77	34.60	0.83	27.40	68	1.56

60

SPENCER F. BAIRD; May 18, 1958; 1658 GCT; 5°31'N, 79°54.5'W; sounding, 1640 fm; wind, 190°, force 3; weather, cloudy; sea, moderate; wire angle, 25°.

0	26.85	32.92	4.09	0.39b)	0	26.85	32.92	4.09	21.23	658	0.00
4	26.78	32.94	4.02	0.44b)	10	26.50	33.02	3.75	21.41	640	0.06
8	26.63	32.97	3.87	0.41	20	22.90	34.15	3.02	23.36	453	0.12
18	23.86	33.95	3.22	0.82	30	18.68	34.78	1.38	24.96	301	0.16
22	19.94	34.69	1.86	1.48	50	16.89	34.94	1.19	25.52	247	0.21
31	18.57	34.79	1.36	1.72	75	16.27	34.98	1.24	25.69	231	0.27
48	16.98	34.93	1.20	1.79b)	100	15.76	34.99	1.24	25.81	219	0.33
65	16.48	34.97	1.19	1.80	150	14.64	34.95	0.85	26.03	199	0.44
85	16.08	34.99	1.32	1.76	200	13.79	34.90	0.57	26.17	186	0.53
137	14.88	34.96	0.93	2.09b)	250	12.94	34.85	0.30	26.30	173	0.63
264	12.70	34.83	0.24	2.38b)							
270p	12.22	34.79	0.04	2.54							
530p	7.59	34.58	0.00	2.98							
759	6.22	34.56	0.22	3.13							
952	5.10	34.54	0.60	3.12							
1060	4.62	34.55	0.81	3.08							

62

SPENCER F. BAIRD; May 19, 1958; 1156, 1733 GCT; 5°28'N, 77°46'W; sounding, 920 fm; wind, 240°, force 1; weather, cloudy; sea, slight; wire angle, 13°, 30°.

0	27.56	32.38	3.82	0.33	0	27.56	32.38	3.82	20.59	718	0.00
10	27.62	32.57	3.66	0.38	10	27.62	32.57	3.66	20.70	707	0.07
20	27.46	33.26	3.56	0.44	20	27.46	33.26	3.56	21.28	652	0.14
39	26.86	33.53	3.42	0.58	30	27.46	33.27	3.56	21.30	650	0.20
59	17.38	34.92	1.39	1.76	50	22.10	34.28	2.38	23.60	430	0.31
66	16.82	34.92	1.23	1.82	75	16.64	34.94	1.20	25.57	243	0.40
81	16.56	34.96	1.20	1.84	100	16.12	34.97	1.23	25.71	229	0.46
94	16.21	34.97	1.23	1.86	150	14.91	34.95	1.10	25.96	205	0.57
					200	13.20	34.88	0.43	26.28	175	0.67
115	15.90	34.96	1.20	1.96	250	12.06	34.83	0.23	26.46	158	0.75
139	15.43	34.96	1.11	2.00	300	11.19	34.78	0.07	26.59	145	0.83
170	14.02	34.91	0.70	2.18	400	9.30	34.67	0.00	26.83	123	0.97
227	12.47	34.85	0.27	2.50	500	7.83	34.61	0.08	27.01	106	1.10
312	10.97	34.77	0.03	2.80c)	600	6.93	34.59	0.16	27.12	95	1.20
420	8.90	34.65	0.00	3.02c)	700	6.32	34.57	0.26	27.20	88	1.31
645	6.65	34.58	0.20	3.20	800	5.75	34.56	0.43	27.26	82	1.40
974	4.82	34.55	0.80	3.20	1000	(4.68)	(34.55)	(0.88)	(27.38)	(71)	(1.58)

a) Duplicate values: 139 m, 2.17; 206 m, 2.35; 269 m, 2.51; 379 m, 3.01; 831 m, 3.33 µg at/L.
b) Duplicate values: 0 m, 0.49; 4 m, 0.38; 48 m, 1.86; 137 m, 1.63; 264 m, 2.29 µg at/L.
c) Duplicate values: 312 m, 2.87; 420 m, 3.12 µg at/L.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
70	SPENCER F. BAIRD; May 24, 1958; 1556 GCT; 7°15'N, 82°41'W; sounding, 1812 fm; wind, 260°, force 1; weather, cloudy; sea, slight; wire angle, 05°.										
0	28.88	33.10	3.99	0.32	0	28.88	33.10	3.99	20.69	708	0.00
10	28.85	33.10	3.88	0.32	10	28.85	33.10	3.88	20.72	706	0.07
20	28.94	33.21	3.91	0.30	20	28.94	33.21	3.91	20.77	701	0.14
30	27.14	33.82	4.04	0.47	30	27.14	33.82	4.04	21.81	602	0.21
39	21.24	34.76	2.37	1.36	50	19.38	34.92	1.80	24.88	308	0.30
49	19.56	34.91	1.86	1.58	75	17.41	34.99	1.42	25.43	256	0.37
68	17.64	34.99	1.49	1.78	100	15.52	34.94	0.85	25.82	218	0.43
83	17.14	34.99	1.31	1.86	150	14.41	34.94	0.69	26.07	195	0.53
96	15.66	34.94	0.89	1.98	200	13.62	34.90	0.50	26.21	182	0.63
146	14.46	34.94	0.71	2.15	250	12.74	34.86	0.35	26.36	168	0.72
214	13.40	34.89	0.44	2.29	300	11.71	34.81	0.30	26.50	154	0.80
282	12.15	34.83	0.33	2.56a)	400	9.21	34.67	0.06	26.84	122	0.95
375	9.68	34.69	0.07	2.90	500	7.84	34.62	0.07	27.02	105	1.07
473	8.10	34.63	0.06	3.15	600	7.05	34.61	0.20	27.12	95	1.18
700	6.35	34.60	0.36	3.19	700	6.35	34.60	0.36	27.22	86	1.28
1065	4.59	34.59	0.86	3.15a)	800	5.76	34.59	0.51	27.29	79	1.37
					1000	4.87	34.59	0.78	27.39	70	1.54
72	SPENCER F. BAIRD; May 25, 1958; 1651 GCT; 9°30'N, 85°52'W; sounding, 1800 fm; wind, 210°, force 2; weather, rain; sea, moderate; wire angle, 03°.										
0	29.28	33.41	4.10	0.34	0	29.28	33.41	4.10	20.80	698	0.00
10	29.45	33.76	4.17	0.33	10	29.45	33.76	4.17	21.00	679	0.07
20	29.49	33.76	4.12	0.32	20	29.49	33.76	4.12	20.98	681	0.14
30	27.92	33.89	4.43	0.45b)	30	27.92	33.89	4.43	21.62	619	0.20
40	25.20	34.14	4.27	0.61	50	20.40	34.62	2.32	24.38	355	0.30
49	21.06	34.61	2.59	1.39	75	16.60	34.72	1.26	25.41	257	0.38
69	17.62	34.71	1.56	1.81	100	15.18	34.84	0.75	25.83	218	0.44
84	15.58	34.79	0.98	2.06	150	13.53	34.89	0.57	26.23	180	0.54
98	15.22	34.83	0.79	2.12	200	12.87	34.89	0.61	26.36	168	0.63
148	13.54	34.89	0.57	2.27b)	250	12.30	34.85	0.56	26.43	161	0.71
215	12.68	34.89	0.64	2.26	300	11.76	34.79	0.39	26.49	155	0.79
281	11.99	34.81	0.50	2.46	400	10.19	34.72	0.04	26.72	133	0.95
372	10.66	34.74	0.08	2.74	500	8.63	34.64	0.06	26.92	115	1.08
469	9.06	34.66	0.04	3.05b)	600	7.20	34.60	0.18	27.09	98	1.20
696	6.24	34.58	0.26	3.18	700	(6.21)	(34.58)	(0.29)	(27.22)	(86)	(1.30)
1062c)	4.44	34.56	0.56	3.41b)	800	(5.59)	(34.57)	(0.36)	(27.28)	(80)	(1.39)
					1000	(4.70)	(34.56)	(0.52)	(27.38)	(71)	(1.56)
74	SPENCER F. BAIRD; May 26, 1958; 1709 GCT; 11°27'N, 88°44.5'W; sounding, 1960 fm; wind, 040°, force 3; weather, overcast; sea, moderate; wire angle, 45°.										
1	29.70	33.91	3.88	0.31	0	(29.71)	(33.90)	(3.88)	(21.03)	(676)	(0.00)
7	29.66	33.94	3.82	0.32	10	29.67	33.95	3.89	21.07	672	0.07
14	29.70	33.96	3.91	0.32	20	29.47	34.05	3.91	21.19	660	0.13
23	29.44	34.06	3.92	0.34	30	28.86	34.11	4.35	21.48	633	0.20
29	28.86	34.11	4.35	0.38	50	25.53	34.39	4.13	22.74	512	0.31
37	28.46	34.16	4.32	0.42	75	17.69	34.80	1.34	25.21	277	0.41
49	26.12	34.35	4.24	0.53	100	16.30	34.87	1.07	25.60	239	0.48
56	22.14	34.64	2.85	1.18	150	14.11	34.88	0.53	26.10	192	0.59
61	19.52	34.70	1.88	-	200	12.81	34.88	0.40	26.35	168	0.68
86	16.93	34.85	1.19	1.91d)	250	12.00	34.85	0.21	26.49	155	0.76
119	15.47	34.88	1.00	-							
155	13.90	34.88	0.50	-							
208	12.61	34.88	0.39	2.50							
267	11.79	34.83	0.11	2.73d)							
335e)	10.78	34.79	0.07	2.76							
458e)	8.89	34.66	0.05	3.13							

a) Duplicate values: 282 m, 2.48; 1065 m, 3.27 µg at/L.
b) Duplicate values: 30 m, 0.38; 148 m, 2.34; 469 m, 2.96; 1026 m, 3.33 µg at/L.
c) Alternate depth of 970 meters possible, but not probable.
d) Duplicate values: 86 m, 1.83; 335 m, 2.61 µg at/L.
e) Pretrip; too uncertain for interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m

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SPENCER F. BAIRD; May 27, 1958; 1654 GCT; 13°16'N, 91°23.5'W; sounding, 910 fm; wind, direction missing, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.

0	31.46	33.98	5.05	0.16	0	31.46	33.98	5.05	20.50	727	0.00
8	30.76	33.98	5.05	0.21	10	30.70	33.97	5.07	20.75	703	0.07
15	30.40	33.96	5.13	0.22	20	30.12	33.95	4.94	20.94	685	0.14
20	30.12	33.95	4.94	0.23	30	28.88	33.98	4.27	21.37	643	0.21
35	26.24	34.14	3.46	0.80	50	19.07	34.69	1.99	24.78	317	0.30
50	19.07	34.69	1.99	1.66	75	15.45	34.78	0.89	25.72	228	0.37
68	16.08	34.75	0.99	1.68	100	14.38	34.83	0.62	26.01	201	0.43
82	15.06	34.81	0.83	1.76	150	13.63	34.85	0.48	26.16	186	0.52
96	14.42	34.83	0.61	2.23	200	12.85	34.82	0.29	26.30	173	0.62
145	13.73	34.85	0.51	2.32	250	12.12	34.79	0.20	26.42	162	0.71
214	12.62	34.81	0.22	2.51	300	11.40	34.77	0.19	26.54	150	0.78
282	11.72	34.78	0.22	2.53a)	400	9.68	34.68	0.05	26.78	128	0.93
376	10.08	34.70	0.06	2.94a)	500	(8.01)	(34.61)	(0.08)	(26.98)	(108)	(1.06)
475	8.41	34.62	0.07	3.08a)	600	(6.95)	(34.58)	(0.09)	(27.12)	(95)	(1.17)
708	6.01	34.57	0.10	3.34	700	(6.06)	(34.57)	(0.10)	(27.23)	(85)	(1.27)
1068	4.24	34.56	0.20	3.34a)	800	5.46	34.57	0.12	27.30	78	(1.36)
					1000	4.54	34.56	0.18	27.40	69	(1.53)

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SPENCER F. BAIRD; May 27, 1958; 0550 GCT; 14°12'N, 92°47'W; sounding, 633 fm; wind, direction missing, force 1; weather, missing; sea, slight; wire angle, 00°.

0	30.91	34.25	3.88	0.28	0	30.91	34.25	3.88	20.90	689	0.00
5	30.90	34.19	3.85	0.36	10	30.35	34.14	3.87	20.97	682	0.07
10	30.35	34.14	3.87	0.33	20	29.70	34.11	4.47	21.18	661	0.14
15	30.14	34.16	3.93	0.36	30	28.26	34.15	4.62	21.70	612	0.20
20	29.70	34.11	4.47	0.38	50	22.90	34.29	3.16	23.44	445	0.30
30	28.26	34.15	4.62	0.42	75	16.52	34.78	0.69	25.48	251	0.39
49	23.32	34.25	3.32	1.06	100	14.97	34.88	0.58	25.91	210	0.45
58	20.19	34.56	0.92	1.80	150	13.23	34.88	0.29	26.27	176	0.55
67	17.62	34.70	0.75	2.35b)	200	12.48	34.87	0.15	26.41	163	0.64
85	15.62	34.86	0.65	2.26	250	11.98	34.83	0.20	26.48	156	0.72
140	13.45	34.88	0.36	2.50	300	11.37	34.79	0.20	26.56	148	0.80
184	12.66	34.88	0.15	2.72	400	9.78	34.72	0.08	26.80	126	0.94
279	11.64	34.81	0.22	2.70	500	(7.90)	(34.64)	(0.07)	(27.03)	(104)	(1.07)
374	10.21	34.74	0.08	2.93	600	(6.94)	(34.62)	(0.08)	(27.15)	(93)	(1.17)
469	8.40	34.66	0.07	3.23b)	700	(6.22)	(34.60)	(0.10)	(27.23)	(85)	(1.27)
718	6.11	34.60	0.11	3.30							

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SPENCER F. BAIRD; May 28, 1958; 1417 GCT; 14°14'N, 93°48'W; sounding, 2800 fm; wind, 150°, force 1; weather, partly cloudy; sea, slight; wire angle, 10°.

0	30.64	34.26	4.22	0.30	0	30.64	34.26	4.22	20.97	682	0.00
5	30.65	34.14	4.31	0.31	10	30.66	34.14	4.31	20.87	691	0.07
10	30.66	34.14	4.31	0.32	20	29.08	34.04	4.77	21.34	646	0.14
15	30.26	34.11	4.34	0.34	30	27.38	34.16	4.88	21.98	585	0.20
20	29.08	34.04	4.77	0.34	50	20.30	34.48	2.27	24.30	363	0.29
29	27.52	34.15	4.90	0.40	75	16.04	34.78	0.91	25.58	242	0.37
48	21.98	34.34	2.76	1.35	100	15.20	34.80	0.57	25.79	222	0.43
67	16.74	34.77	1.34	1.79	150	13.40	34.84	0.27	26.21	182	0.53
80	15.70	34.78	0.68	2.22	200	12.45	34.84	0.13	26.40	164	0.62
99	15.24	34.80	0.58	2.24	250	11.63	34.80	0.14	26.52	152	0.70
186	12.67	34.85	0.15	2.57c)	300	10.83	34.76	0.13	26.63	142	0.78
278	11.20	34.78	0.17	2.70	400	9.21	34.66	0.09	26.84	122	0.92
367	9.83	34.69	0.08	2.82	500	7.65	34.59	0.12	27.02	105	1.04
456	8.18	34.61	0.12	3.07	600	6.88	34.56	0.10	27.11	96	1.14
685	6.29	34.54	0.08	3.30	700	(6.21)	(34.54)	(0.08)	(27.19)	(89)	(1.25)
1036	4.44	34.54	0.29	3.46	800	(5.67)	(34.54)	(0.13)	(27.25)	(83)	(1.34)
					1000	(4.62)	(34.54)	(0.27)	(27.38)	(71)	(1.52)

a) Duplicate values: 282 m, 2.64; 376 m, 2.84; 475 m, 3.16; 1068 m, 3.57 μg at/L.
b) Duplicate values: 67 m, 2.46; 469 m, 3.07 μg at/L.
c) Duplicate value, 2.57 μg at/L.

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SCOT

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
79	SPENCER F. BAIRD; May 28, 1958; 1945 GCT; 14°37.5'N, 93°52'W; sounding, 1200 fm; wind, 340°, force 3; weather, cloudy; sea, rough; wire angle, 10°.										
0	30.30	33.96	4.24	0.34	0	30.30	33.96	4.24	20.86	692	0.00
5	30.24	33.98	4.47	0.31	10	30.16	33.96	4.38	20.92	687	0.07
10	30.16	33.96	4.38	0.33	20	29.94	33.96	4.52	21.00	679	0.14
15	30.14	33.96	4.32	0.34	30	26.74	34.15	4.44	22.19	565	0.20
20	29.94	33.96	4.52	0.34	50	19.78	34.59	1.86	24.53	342	0.29
29	26.82	34.11	4.47	0.44	75	16.75	34.77	0.99	25.42	257	0.36
48	20.46	34.58	1.93	1.72	100	15.25	34.81	0.79	25.79	222	0.43
68	17.53	34.74	1.40	1.84a)	150	13.73	34.83	0.55	26.14	189	0.53
81	16.24	34.78	0.75	2.21	200	12.47	34.83	0.37	26.38	166	0.62
99	15.28	34.81	0.79	2.33	250	11.83	34.80	0.22	26.48	156	0.70
190	12.62	34.83	0.40	2.54	300	11.18	34.76	0.10	26.58	146	0.78
287	11.36	34.77	0.11	2.78	400	9.59	34.68	0.10	26.80	126	0.93
378	9.99	34.70	0.09	3.03	500	7.80	34.60	0.13	27.01	106	1.05
471	8.22	34.61	0.12	3.32a)	600	6.85	34.59	0.11	27.14	94	1.16
706	6.10	34.58	0.10	3.60	700	6.14	34.58	0.10	27.22	86	1.26
1061	4.32	34.58	0.34	3.79	800	5.59	34.58	0.14	27.29	79	1.35
					1000	4.61	34.58	0.29	27.41	68	1.52
80	SPENCER F. BAIRD; May 29, 1958; 0100 GCT; 15°13.5'N, 93°46'W; sounding, 102 fm; wind, 330°, force 1; weather, cloudy; sea, rough; wire angle, 00°.										
0	29.83	34.04	4.90	0.29	0	29.83	34.04	4.90	21.08	671	0.00
5	29.84	34.00	4.82	0.32	10	29.65	33.98	4.73	21.09	670	0.07
10	29.65	33.98	4.73	0.38	20	28.92	34.00	4.97	21.36	644	0.13
15	29.59	33.98	4.64	0.33	30	27.40	34.01	5.19	21.87	595	0.20
20	28.92	34.00	4.97	0.38	50	22.40	34.33	3.78	23.62	428	0.30
30	27.40	34.01	5.19	0.44	75	17.07	34.74	1.43	25.32	267	0.38
40	24.80	34.14	4.88	0.57	100	15.20	34.78	0.53	25.78	223	0.45
74	17.11	34.74	1.44	1.89	150	(13.60)	(34.88)	(0.18)	(26.20)	(183)	(0.55)
98	15.30	34.78	0.58	2.26							
120	14.42	34.82	0.31	2.44							
144	13.75	34.87	0.20	2.43							
81	SPENCER F. BAIRD; May 29, 1958; 0554 GCT; 14°47'N, 94°21'W; sounding, 1380 fm; wind, 340°, force 2; weather, missing; sea, slight; wire angle, 03°.										
0	29.34	33.98	3.42	0.32	0	29.34	33.98	3.42	21.20	659	0.00
5	29.33	34.00	4.24	0.32	10	29.34	33.99	3.49	21.21	658	0.06
10	29.34	33.99	3.49	0.34	20	28.86	33.96	3.05	21.35	646	0.13
15	29.35	33.98	3.15	0.34	30	25.74	34.09	4.64	22.45	540	0.19
20	28.86	33.96	3.05	0.58b)	50	19.47	34.63	1.20	24.64	331	0.28
29	25.82	34.08	4.68	0.56	75	16.59	34.79	0.83	25.47	252	0.35
48	19.88	34.60	1.30	1.81	100	14.84	34.85	0.52	25.91	210	0.41
67	17.44	34.76	0.91	2.13	150	13.50	34.87	0.32	26.21	182	0.51
81	15.96	34.81	0.76	2.37b)	200	12.43	34.86	0.19	26.42	162	0.60
100	14.84	34.85	0.52	2.44	250	11.79	34.82	0.14	26.51	153	0.68
192	12.56	34.87	0.19	2.63	300	11.19	34.78	0.10	26.59	146	0.76
289	11.31	34.78	0.11	2.78	400	9.57	34.71	0.08	26.82	124	0.90
381	9.92	34.72	0.08	3.08	500	(7.92)	(34.63)	(0.12)	(27.02)	(105)	(1.02)
474	8.18	34.64	0.11	3.37b)							
711	-	34.56	0.08	3.44b)							
1067	4.28	34.54	0.32	3.62							

a) Duplicate values: 68 m, 1.96; 471 m, 3.24 µg at/L.
b) Duplicate values: 20 m, 0.37; 81 m, 2.29; 474 m, 3.24; 711 m, 3.52 µg at/L.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

SPENCER F. BAIRD; May 29, 1958; 1421 GCT; 15°48'N, 94°53'W; sounding, 125 fm; wind, 340°, force 5; weather, partly cloudy; sea, rough; wire angle, 35°. 82

0	28.38	34.04	4.58	0.32	0	28.38	34.04	4.58	21.58	623	0.00
4	28.38	34.00	4.40	0.31	10	28.40	34.01	4.50	21.55	626	0.06
8	28.40	34.00	4.50	0.32	20	27.48	34.05	5.46	21.88	595	0.12
12	28.40	34.01	4.51	0.34	30	23.15	34.29	3.79	23.37	452	0.18
16	28.38	34.03	5.05	0.35	50	19.37	34.53	1.45	24.59	336	0.25
24	25.61	34.13	5.92	0.40	75	16.32	34.72	0.88	25.48	251	0.33
32	22.81	34.31	3.44	1.13a)	100	14.86	34.82		25.89	212	0.39
59	18.00	34.62	1.02	2.00							
77	16.08	34.74	0.88	2.38							
96	14.86	34.78	0.61	2.20a)							
115	14.02	34.85	-	2.53a)							

SPENCER F. BAIRD; May 29, 1958; 2032 GCT; 15°20'N, 94°55'W; sounding, 400 fm; wind, 020°, force 2; weather, partly cloudy; sea, moderate; wire angle, 40°. 83

0	27.94	34.14	4.60	0.32	0	27.94	34.14	4.60	21.79	603	0.00
4	27.92	34.14	3.99	0.32	10	27.80	34.12	4.06	21.82	600	0.06
8	27.83	34.13	4.31	0.30	20	27.72	34.13	3.70	21.86	597	0.12
12	27.76	34.11	3.71	0.32	30	22.24	34.34	2.58	23.67	424	0.17
16	27.76	34.12	3.86	0.32	50	19.47	34.56	1.06	24.59	336	0.25
20	27.72	34.13	3.70	0.33	75	18.00	34.76	0.40	25.11	286	0.33
30	22.24	34.34	2.58	1.36	100	14.35	34.80	0.39	25.98	204	0.39
44	20.35	34.43	1.39	1.90	150	13.05	34.83	0.22	26.27	176	0.48
52	19.16	34.59	0.94	2.08	200	12.37	34.83	0.24	26.40	164	0.57
60	18.62	34.61	0.85	2.18	250	11.88	34.79	0.11	26.47	157	0.65
96	14.54	34.79	0.40	2.48	300	11.28	34.76	0.12	26.57	148	0.73
155	12.97	34.83	0.20	2.57	400	9.74	34.69	0.14	26.78	128	0.88
188	12.48	34.83	0.25	2.58	500	7.85	34.59	0.13	27.00	107	1.01
253	11.85	34.79	0.10	2.70b)							
328	10.92	34.75	0.14	2.77							
525	7.32	34.57	0.12	3.46							

SPENCER F. BAIRD; May 30, 1958; 0110 GCT; 14°40.5'N, 94°56'W; sounding, 2400 fm; wind, 330°, force 2; weather, partly cloudy; sea, moderate; wire angle, 30°. 84

0	27.84	34.20	4.80	0.34	0	27.84	34.20	4.80	21.87	595	0.00
8	27.64	34.18	4.73	0.36	10	27.60	34.18	4.72	21.94	589	0.06
17	27.46	34.19	4.73	0.40	20	27.38	34.19	4.75	22.02	582	0.12
26	27.14	34.19	4.82	0.39	30	27.05	34.19	4.83	22.12	572	0.18
35	26.84	34.18	4.84	0.42	50	21.20	34.50	2.27	24.10	382	0.27
43	23.92	34.29	3.21	1.14	75	15.99	34.82	0.72	25.63	237	0.35
60	17.12	34.76	1.02	2.07	100	14.75	34.84	0.63	25.92	209	0.41
72	16.16	34.81	0.73	2.21c)	150	13.50	34.88	0.40	26.22	181	0.50
84	15.52	34.83	0.73	2.24	200	12.64	34.88	0.24	26.39	165	0.59
123	14.04	34.86	0.49	2.40	250	12.09	34.85	0.15	26.48	156	0.68
177	13.00	34.88	0.31	2.62	300	11.42	34.81	0.14	26.57	148	0.76
232	12.28	34.86	0.17	2.51	400	9.59	34.70	0.07	26.81	125	0.90
309	11.30	34.80	0.14	2.58	500	8.10	34.64	0.07	27.00	107	1.02
393	9.72	34.70	0.08	2.97c)	600	(6.95)	(34.60)	(0.09)	(27.12)	(95)	(1.14)
596	7.00	34.60	0.09	3.35c)	700	(6.25)	(34.58)	(0.10)	(27.21)	(87)	(1.24)
940	4.99	34.55	0.14	3.61c)	800	(5.70)	(34.56)	(0.11)	(27.27)	(81)	(1.33)
					1000	(4.72)	(34.55)	(0.13)	(27.38)	(71)	(1.50)

a) Duplicate values: 32 m, 1.00; 96 m, 2.20; 115 m, 2.37 µg at/L.
b) Duplicate value, 2.60 µg at/L.
c) Duplicate values: 72 m, 2.28; 393 m, 3.11; 596 m, 3.06; 940 m, 3.35 µg at/L.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
85	SPENCER F. BAIRD; May 30, 1958; 0440 GCT; 14°12'N, 94°59.5'W; sounding, 2200 fm; wind, 300°, force 2; weather, missing; sea, moderate; wire angle, 13°.										
0	29.52	34.15	3.75	0.34	0	29.52	34.15	3.75	21.28	652	0.00
10	29.56	34.16	3.32	0.30	10	29.56	34.16	3.32	21.27	653	0.06
19	29.41	34.14	3.49	0.32	20	29.20	34.14	3.47	21.36	644	0.13
29	25.92	34.10	3.37	0.52	30	25.70	34.12	3.30	22.49	536	0.19
39	23.20	34.27	2.56	1.02	50	20.30	34.53	1.30	24.33	360	0.28
48	20.94	34.48	1.49	1.58	75	16.40	34.80	0.80	25.52	247	0.36
67	17.42	34.75	0.78	1.88	100	14.91	34.81	0.55	25.86	215	0.41
82	15.79	34.81	0.79	2.14	150	13.23	34.87	0.24	26.27	176	0.51
95	15.09	34.81	0.61	2.18	200	12.02	34.86	0.14	26.49	155	0.60
144	13.24	34.84	0.25	2.49	250	11.30	34.81	0.16	26.59	145	0.68
210	11.79	34.84	0.16	2.55	300	10.79	34.78	0.16	26.66	139	0.75
277	11.04	34.79	0.16	2.72	400	9.32	34.69	0.10	26.84	122	0.89
367	9.88	34.72	0.10	3.00	500	7.88	34.64	0.10	27.03	104	1.01
463	8.28	34.65	0.10	3.30a)	600	6.85	34.61	0.10	27.14	94	1.12
688	6.14	34.59	0.14	3.41a)	700	(6.10)	(34.59)	(0.14)	(27.24)	(84)	(1.22)
1055	4.48	34.57	0.42	3.61a)	800	(5.54)	(34.58)	(0.17)	(27.30)	(78)	(1.31)
					1000	(4.68)	(34.57)	(0.36)	(27.40)	(69)	(1.48)
86	SPENCER F. BAIRD; May 30, 1958; 1432 GCT; 14°13.5'N, 95°51'W; sounding, 2170 fm; wind, 320°, force 2; weather, cloudy; sea, slight; wire angle, 17°.										
0	28.99	33.99	4.60	0.31	0	28.99	33.99	4.60	21.34	646	0.00
9	28.98	33.99	4.60	0.34	10	28.98	33.99	4.60	21.34	646	0.06
19	29.01	34.01	4.62	0.34	20	29.01	34.00	4.61	21.34	646	0.13
28	29.00	33.98	4.57	0.36	30	28.98	33.98	4.57	21.34	646	0.19
38	28.31	34.05	4.58	0.38	50	26.00	34.17	4.58	22.43	542	0.31
47	26.74	34.13	4.75	0.49	75	20.10	34.53	1.93	24.40	354	0.42
66	22.36	34.34	2.97	1.30	100	15.50	34.73	0.26	25.67	233	0.50
79	18.90	34.65	1.41	2.06	150	13.46	34.82	0.18	26.19	184	0.60
92	16.60	34.70	0.41	2.38b)	200	12.62	34.82	0.13	26.34	169	0.69
140	13.66	34.82	0.18	2.68b)	250	11.96	34.79	0.13	26.45	159	0.78
203	12.59	34.82	0.13	2.56	300	10.93	34.74	0.12	26.60	144	0.86
266	11.70	34.78	0.13	3.21b)	400	8.77	34.64	0.08	26.90	117	1.00
351	9.60	34.67	0.08	3.01b)	500	7.40	34.59	0.10	27.07	100	1.11
443	8.04	34.61	0.09	3.17b)	600	6.48	34.57	0.11	27.17	90	1.22
659	6.06	34.56	0.11	3.38b)	700	(5.83)	(34.56)	(0.14)	(27.25)	(83)	(1.31)
1016	4.37	34.58	0.32	3.66b)	800	(5.35)	(34.57)	(0.19)	(27.31)	(77)	(1.40)
					1000	(4.52)	(34.58)	(0.30)	(27.42)	(67)	(1.56)

a) Duplicate values: 463 m, 3.20; 688 m, 3.31; 1055 m, 3.53 µg at/L.

b) Duplicate values: 92 m, 2.31; 140 m, 2.47; 266 m, 3.01; 351 m, 3.13; 443 m, 3.09; 659 m, 3.29; 1016 m, 3.41 µg at/L.

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD	87
m	°C	‰	ml/L	μg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m	
SPENCER F. BAIRD; May 30-31, 1958; 2140, 0020 GCT; 13°46.5'N, 96°08'W; sounding, 2440 fm; wind, direction missing, force 1; weather, partly cloudy; sea, moderate; wire angle, 20°, 40°.												
0	30.03	34.14	4.30	0.34	0	30.03	34.14	4.30	21.12	670	0.00	
9	29.70	34.13	4.29	0.33	10	29.68	34.13	4.30	21.20	660	0.07	
18	29.50	34.15	4.42	0.32	20	29.46	34.16	4.43	21.30	650	0.13	
28	29.04	34.16	4.40	0.34	30	28.87	34.17	4.44	21.49	631	0.20	
37	28.27	34.23	4.67	0.40	50	22.50	34.42	2.92	23.65	425	0.30	
46	24.19	34.34	3.76	0.94	75	16.82	34.69	0.37	25.34	264	0.39	
64	18.22	34.60	0.63	2.33	100	14.21	34.79	0.10	26.00	202	0.45	
78	16.58	34.70	0.32	2.60	150	12.82	34.81	0.10	26.29	174	0.54	
91	14.80	34.76	0.10	2.24a)	200	12.03	34.79	0.09	26.44	160	0.63	
118p	13.36	34.82	0.12	2.78a)	250	11.20	34.76	0.06	26.57	148	0.71	
244p	11.24	34.76	0.07	2.93	300	10.39	34.71	0.04	26.68	137	0.78	
349p	9.52	34.66	0.08	3.14	400	8.72	34.62	0.08	26.89	117	0.91	
596p	6.46	34.54	0.07	3.55	500	7.30	34.57	0.07	27.07	101	1.03	
					600	(6.43)	(34.54)	(0.07)	(27.16)	(92)	(1.14)	
813	5.28	34.54	0.22	3.41a)	700	(5.88)	(34.54)	(0.11)	(27.22)	(86)	(1.24)	
1170	3.84	34.60	0.64	3.48	800	(5.40)	(34.54)	(0.20)	(27.28)	(80)	(1.33)	
1449	3.10	34.61	1.09	3.39	1000	4.50	34.57	0.44	27.42	67	(1.49)	
1825	2.47	34.63	1.66	3.18	1200	3.76	34.60	0.67	27.52	58	(1.64)	
2205	1.99	34.63	2.15	3.04	1500	3.01	34.61	1.20	27.60	50	(1.83)	
2590	1.90	34.65	2.31	2.94	2000	2.22	34.63	1.90	27.68	43	(2.12)	
2819	1.88	34.67	2.58	2.86a)								
3197	1.88	34.67	1.72u	2.96								
3503	1.88	34.66	2.37	2.84								
3597	1.90	34.65	2.41	2.92								
SPENCER F. BAIRD; May 31, 1958; 1227 GCT; 15°11'N, 96°55'W; sounding, 2130 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 25°.												88
0	29.84	34.05	3.04	0.32	0	29.84	34.05	3.04	21.07	672	0.00	
9	29.84	34.04	2.95	0.32	10	29.84	34.04	2.96	21.08	671	0.07	
18	29.86	34.05	3.11	0.34	20	29.85	34.04	3.12	21.08	671	0.13	
27	29.80	34.07	3.14	0.34	30	29.70	34.09	3.23	21.15	665	0.20	
36	28.58	33.91	4.66	0.39	50	27.65	33.98	4.80	21.77	606	0.33	
44	28.08	33.92	4.87	0.63b)	75	24.80	34.23	3.66	22.84	502	0.47	
61	26.50	34.11	4.32	0.70	100	17.50	34.64	0.62	25.14	284	0.57	
74	25.27	34.22	3.87	0.80	150	13.55	34.83	0.20	26.16	186	0.68	
86	20.47	34.45	1.47	1.94	200	12.38	34.81	0.16	26.39	165	0.77	
129	14.39	34.82	0.23	2.55	250	11.66	34.77	0.12	26.49	155	0.85	
182	12.70	34.83	0.17	2.66	300	10.88	34.73	0.09	26.61	144	0.93	
238	11.82	34.78	0.13	2.64b)	400	9.32	34.66	0.08	26.82	124	1.07	
310	10.72	34.72	0.08	2.77b)	500	7.92	34.62	0.08	27.02	105	1.19	
389	9.46	34.67	0.08	2.98b)	600	(6.92)	(34.60)	(0.10)	(27.14)	(94)	(1.30)	
582	7.04	34.60	0.10	3.35b)	700	(6.21)	(34.60)	(0.13)	(27.23)	(85)	(1.40)	
909	4.88	34.60	0.20	3.52	800	(5.56)	(34.60)	(0.17)	(27.31)	(77)	(1.49)	
					1000	(4.36)	(34.60)		(27.45)	(64)	(1.65)	

a) Duplicate values: 91 m, 2.68; 118 m, 2.77; 813 m, 3.30; 2819 m, 2.96 μg at/L.
b) Duplicate values: 44 m, 0.41; 238 m, 2.78; 310 m, 2.87; 389 m, 3.07; 582 m, 3.26 μg at/L.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
89	SPENCER F. BAIRD; May 31, 1958; 2235 GCT; 15°12'N, 96°03.5'W; sounding, 2660 fm; wind, 220°, force 5; weather, partly cloudy; sea, moderate; wire angle, 30°.										
0	30.56	34.06	4.23	0.54	0	30.56	34.06	4.23	20.85	693	0.00
9	30.06	34.04	3.52	0.35	10	30.05	34.04	3.53	21.03	676	0.07
18	29.90	34.01	4.43	0.36	20	29.83	34.00	4.46	21.06	673	0.14
26	29.35	33.98	4.55	0.36	30	29.03	33.99	4.67	21.34	647	0.20
34	28.76	34.02	4.78	0.35	50	26.14	34.14	4.41	22.38	547	0.32
42	27.86	34.03	4.69	0.38	75	19.00	34.55	0.66	24.70	325	0.43
58	24.66	34.27	4.21	0.75	100	15.02	34.76	0.20	25.80	221	0.50
69	21.00	34.45	1.59	1.84	150	13.12	34.84	0.19	26.26	177	0.60
78	18.28	34.59	0.45	2.37	200	12.18	34.82	0.13	26.43	161	0.68
115	13.94	34.81	0.17	2.61	250	11.47	34.78	0.10	26.54	151	0.77
165	12.84	34.84	0.20	2.60	300	10.89	34.74	0.09	26.61	144	0.84
215	11.92	34.81	0.10	2.69	400	9.38	34.65	0.08	26.80	125	0.98
282	11.16	34.76	0.10	2.86	500	8.00	34.59	0.09	26.98	109	1.11
352	10.08	34.69	0.08	3.05	600	(7.04)	(34.56)	(0.10)	(27.08)	(99)	(1.22)
526	7.68	34.58	0.09	3.36	700	(6.30)	(34.54)	(0.09)	(27.18)	(90)	(1.33)
830	5.36	34.53	0.09	3.44	800	(5.58)	(34.53)	(0.09)	(27.26)	(82)	(1.42)
90	SPENCER F. BAIRD; June 1, 1958; 0335 GCT; 15°15'N, 95°22.5'W; sounding, 1360 fm; wind, 260°, force 1; weather, partly cloudy; sea, moderate; wire angle, 12°.										
0	30.32	34.18	4.35	0.26	0	30.32	34.18	4.35	21.02	677	0.00
10	30.28	34.16	4.38	0.29	10	30.28	34.16	4.38	21.04	675	0.07
19	29.00	34.14	4.48	0.30	20	29.00	34.14	4.48	21.44	636	0.13
29	28.33	34.14	4.62	0.35	30	28.33	34.14	4.63	21.66	615	0.20
38	28.24	34.14	4.83	0.35	50	25.28	34.22	3.45	22.68	518	0.31
48	26.92	34.17	4.78	0.46	75	18.00	34.56	0.76	24.96	301	0.41
66	19.86	34.47	1.26	1.92	100	15.17	34.73	0.47	25.75	226	0.48
79	17.06	34.63	0.48	2.29	150	13.15	34.81	0.21	26.23	179	0.58
92	15.60	34.72	0.51	2.35	200	12.27	34.80	0.20	26.40	164	0.67
142	13.38	34.81	0.22	2.54	250	11.58	34.78	0.16	26.51	153	0.75
209	12.16	34.80	0.19	2.61	300	10.94	34.74	0.12	26.60	144	0.83
277	11.24	34.76	0.13	2.68a)	400	9.42	34.65	0.09	26.79	126	0.97
369	9.88	34.67	0.09	2.95a)	500	7.97	34.59	0.08	26.98	109	1.10
467	8.42	34.61	0.08	3.16a)	600	6.98	34.55	0.07	27.09	98	1.21
695	6.26	34.53	0.08	3.48a)	700	(6.23)	(34.53)	(0.08)	(27.17)	(90)	(1.31)
1053	4.44	34.55	0.31	3.56	800	(5.67)	(34.53)	(0.14)	(27.24)	(84)	(1.41)
					1000	(4.69)	(34.55)	(0.28)	(27.38)	(71)	(1.58)
91	SPENCER F. BAIRD; June 1, 1958; 0952 GCT; 14°40.5'N, 95°20'W; sounding, 2300 fm; wind, direction missing, force 1; weather, partly cloudy; sea, moderate; wire angle, 20°.										
0	30.16	34.12	4.25	0.24	0	30.16	34.12	4.25	21.03	676	0.00
8	30.10	34.11	4.39	0.27	10	30.10	34.10	4.39	21.05	674	0.07
17	29.67	34.09	4.49	0.27	20	28.85	34.09	4.66	21.45	635	0.13
26	27.95	34.07	4.75	0.33	30	27.15	34.13	4.69	22.04	579	0.19
33	26.49	34.15	4.59	0.45	50	19.40	34.55	2.11	24.65	330	0.28
40	24.55	34.16	3.77	0.72	75	16.30	34.73	0.80	25.50	250	0.36
52	18.38	34.62	1.81	1.82	100	14.97	34.81	0.63	25.85	216	0.42
62	16.93	34.70	0.93	2.16	150	13.18	34.86	0.47	26.27	176	0.52
72	16.43	34.72	0.83	2.16	200	12.36	34.87	0.14	26.44	160	0.60
109	14.31	34.81	0.65	2.18	250	11.70	34.82	0.22	26.53	152	0.68
159	13.02	34.87	0.43	2.44	300	11.10	34.77	0.31	26.60	144	0.76
210	12.21	34.87	0.10	2.56	400	9.65	34.70	0.08	26.79	126	0.90
280	11.36	34.79	0.32	2.68	500	8.05	34.63	0.10	27.00	107	1.03
358	10.30	34.73	0.08	2.82b)							
551	7.18	34.60	0.14	3.39							
871c)	5.17	34.56	0.20	3.44							

a) Duplicate values: 277 m, 2.81; 369 m, 2.87; 467 m, 3.23; 695 m, 3.41 μg at/L.
b) Duplicate value, 2.89 μg at/L.
c) Unprotected thermometer malfunctioned; depth determined by extrapolation of wire profile curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
SPENCER F. BAIRD; June 1, 1958; 1516 GCT; 14°40'N, 96°08'W; sounding, 2070 fm; wind, direction missing, force 1; weather, partly cloudy; sea, slight; wire angle, 28°.											92
0	30.07	34.11	4.54	0.23	0	30.07	34.11	4.54	21.06	673	0.00
8	30.01	34.11	4.88	0.28	10	30.00	34.08	4.88	21.07	672	0.07
17	29.97	34.07	4.89	0.30	20	29.50	34.05	4.75	21.20	659	0.13
26	29.25	34.05	4.64	0.30	30	29.18	34.05	4.60	21.32	649	0.20
35	29.08	34.05	4.57	0.29	50	28.45	34.10	4.62	21.60	622	0.33
44	28.68	34.07	4.76	0.33	75	24.70	34.25	4.30	22.92	495	0.47
61	27.83	34.07	4.96	0.40	100	16.39	34.68	0.58	25.43	256	0.56
73	25.50	34.20	4.75	0.74	150	13.50	34.84	0.24	26.18	184	0.67
85	19.98	34.48	1.39	1.85a)	200	12.27	34.84	0.18	26.44	160	0.76
124	14.42	34.78	0.37	2.48a)	250	11.46	34.79	0.18	26.55	150	0.84
174	12.82	34.87	0.17	2.53a)	300	10.70	34.74	0.12	26.64	141	0.91
216	12.00	34.83	0.19	2.66	400	9.10	34.67	0.10	26.86	120	1.05
298	10.76	34.74	0.12	2.81	500	7.78	34.61	0.10	27.03	104	1.17
379	9.44	34.68	0.10	3.33a)	600	6.65	34.57	0.12	27.15	92	1.28
570	6.92	34.58	0.12	3.31	700	5.96	34.56	0.11	27.24	84	1.38
885	5.01	34.56	0.08	3.34	800	5.44	34.56	0.10	27.29	79	1.47
					1000	(4.46)	(34.56)		(27.41)	(68)	(1.63)
SPENCER F. BAIRD; June 1, 1958; 1950 GCT; 14°17.5'N, 96°21.5'W; sounding, 2100 fm; wind, direction missing, force 1; weather, partly cloudy; sea, slight; wire angle, 28°.											93
0	30.86	33.98	3.99	0.14	0	30.86	33.98	3.99	20.70	708	0.00
8	30.25	33.95	3.56	0.28	10	30.25	33.95	3.53	20.89	690	0.07
17	30.20	33.95	3.51	0.32	20	29.30	34.02	3.92	21.24	656	0.14
26	29.10	34.04	3.88	0.32	30	29.00	34.07	3.88	21.38	642	0.20
35	28.88	34.11	3.91	0.30	50	27.92	34.09	3.79	21.76	606	0.33
44	28.11	34.09	4.05	0.31	75	25.20	34.21	3.60	22.73	513	0.47
61	27.03	34.12	3.37	0.44	100	17.20	34.65	0.90	25.22	276	0.57
73	25.62	34.18	3.77	0.66	150	13.65	34.81	0.17	26.13	189	0.68
86	21.56	34.42	2.24	1.52	200	12.55	34.83	0.19	26.38	166	0.77
128	14.50	34.78	0.18	2.53	250	11.67	34.77	0.15	26.49	155	0.85
176	13.00	34.83	0.20	2.54	300	10.84	34.70	0.13	26.58	147	0.93
216	12.26	34.83	0.17	2.65	400	9.02	34.61	0.13	26.83	123	1.08
294	10.97	34.70	0.14	2.81	500	7.70	34.56	0.13	26.99	108	1.20
368	9.58	34.63	0.13	3.06	600	(6.75)	(34.53)	(0.13)	(27.10)	(97)	(1.31)
546	7.18	34.54	0.16	3.36	700	(6.08)	(34.53)	(0.11)	(27.19)	(89)	(1.41)
861	5.10	34.53	0.08	3.50	800	(5.47)	(34.53)	(0.09)	(27.27)	(81)	(1.51)
					1000	(4.30)	(34.53)		(27.40)	(69)	(1.68)

a) Duplicate values: 85 m, 1.95; 124 m, 2.34; 174 m, 2.45; 379 m, 3.02 µg at/L.

SIO
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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
94	SPENCER F. BAIRD; June 1-2, 1958; 2340, 0130 GCT; 13°56.5'N, 96°49'W; sounding, 2200 fm; wind, direction missing, force 1; weather, partly cloudy; sea, slight; wire angle, 05°, 10°.										
0	30.00	34.01	4.45	0.26	0	30.00	34.01	4.45	21.00	678	0.00
10	29.50	34.03	4.34	0.27	10	29.50	34.03	4.34	21.20	660	0.07
20	29.42	34.04	4.28	0.26	20	29.42	34.04	4.28	21.23	658	0.13
30	29.23	34.01	4.29	0.28	30	29.23	34.01	4.29	21.26	654	0.20
39	29.10	33.96	4.30	0.28	50	28.60	34.08	4.43	21.54	628	0.33
49	28.72	34.07	4.42	0.32	75	21.40	34.36	2.38	23.92	400	0.46
68	23.33	34.22	3.66	0.90	100	16.20	34.66	0.20	25.46	254	0.54
81	19.76	34.47	0.98	2.00	150	12.97	34.80	0.10	26.26	177	0.64
95	17.66	34.59	0.31	2.30a)	200	12.04	34.77	0.08	26.42	162	0.73
146	13.08	34.80	0.10	2.58	250	11.30	34.73	0.08	26.52	152	0.81
213	11.84	34.76	0.08	2.69	300	10.66	34.68	0.08	26.61	144	0.89
283	10.85	34.70	0.08	2.88	400	9.10	34.61	0.08	26.82	124	1.03
375	9.54	34.63	0.08	2.94a)	500	7.59	34.57	0.09	27.03	104	1.15
473	7.96	34.58	0.08	3.22	600	6.65	34.54	0.10	27.12	95	1.26
700	5.86	34.52	0.14	3.36	700	5.86	34.52	0.14	27.21	87	1.36
1061	4.16	34.52u	0.42	3.58a)	800	5.29	34.52	0.20	27.28	80	1.45
					1000	4.40	34.52	0.32	27.38	71	1.62
1004	4.40	34.54u	0.32	3.32	1200	3.71	34.56	0.72	27.48	61	1.77
1401	3.18	34.59	1.21	3.20a)	1500	2.98	34.59	1.36	27.59	51	1.97
1706	2.59	34.68u	1.59	3.02a)	2000	2.12	34.65	2.13	27.70	41	2.26
2097	2.01	34.63	2.19	2.92a)							
2490	1.84	34.65	2.46	2.82a)							
2894	1.88	34.63	2.67	2.88							
3066p	1.90	34.65	2.58	2.71							
3773p	1.92	34.64	1.39u	2.74a)							
3993p	1.94	34.65	2.58	-							
95	SPENCER F. BAIRD; June 2, 1958; 1950 GCT; 15°36'N, 98°43'W; sounding, 2280 fm; wind, 320°, force 2; weather, partly cloudy; sea, slight; wire angle, 10°.										
0	29.90	34.28			0	29.90	34.28		21.24	656	0.00
10	29.63	34.29			10	29.63	34.29		21.33	647	0.06
20	29.48	34.29			20	29.48	34.29		21.38	642	0.13
30	29.26	34.29			30	29.26	34.29		21.46	635	0.19
39	27.36	34.16			50	25.92	34.26		22.53	532	0.31
49	25.98	34.25			75	19.20	34.62		24.70	325	0.42
67	20.10	34.49			100	15.98	34.74		25.58	242	0.49
80	18.00	34.61			150	13.22	34.85		26.25	178	0.59
94	16.26	34.71			200	12.24	34.85		26.45	159	0.68
142	13.54	34.85			250	11.46	34.77		26.54	151	0.76
209	12.12	34.85			300	10.69	34.72		26.64	141	0.84
250p	11.42	34.77			400	8.99	34.64		26.86	120	0.98
368	9.57	34.67			500	7.45	34.58		27.04	103	1.09
464	7.78	34.59			600	6.76	34.56		27.12	95	1.20
687	6.24	34.55			700	(6.17)	(34.55)		(27.20)	(88)	(1.30)
1052	4.36	34.56			800	(5.53)	(34.55)		(27.26)	(82)	(1.40)
					1000	(4.62)	(34.56)		(27.39)	(70)	(1.57)

a) Duplicate values: 95 m, 2.46; 375 m, 3.01; 1061 m, 3.34; 1401 m, 3.33; 1706 m, 2.95; 2097 m, 2.73; 2490 m, 2.89; 3773 m, 2.84 µg at/L.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m

SPENCER F. BAIRD; June 6, 1958; 1330 GCT; 16°04'N, 100°44'W; sounding, 2030 fm; wind, 200°, force 1; weather, thunderstorm; sea, smooth; wire angle, 10°. 100

0	30.04	34.19	3.66	0.30	0	30.04	34.19	3.66	21.12	667	0.00
10	30.06	34.22	3.78	0.30	10	30.06	34.22	3.78	21.14	666	0.07
20	29.88	34.20	3.62	0.30	20	29.88	34.20	3.62	21.19	661	0.13
29	28.80	34.14	3.92	0.32	30	28.60	34.14	3.98	21.57	624	0.20
39	27.06	34.22	4.58	0.42a)	50	25.10	34.37	4.34	22.86	501	0.31
49	25.74	34.33	4.62	0.47	75	18.91	34.57	0.73	24.74	322	0.41
68	20.19	34.52	1.30	1.88	100	16.76	34.65	0.20	25.32	267	0.49
83	18.00	34.60	0.42	2.34a)	150	13.08	34.83	0.07	26.26	177	0.60
97	17.00	34.64	0.22	2.51	200	12.13	34.78	0.07	26.42	162	0.68
148	13.15	34.83	0.07	2.65	250	11.39	34.74	0.07	26.52	152	0.76
218	11.85	34.77	0.07	2.76	300	10.77	34.71	0.07	26.61	144	0.84
287	10.93	34.72	0.07	2.90	400	9.30	34.63	0.08	26.80	126	0.98
380	9.61	34.64	0.08	3.12	500	(8.00)	(34.59)	(0.07)	(26.98)	(109)	(1.11)
480	8.22	34.60	0.07	3.15	600	(6.99)	(34.56)	(0.07)	(27.10)	(97)	(1.22)
706	5.93	34.53	0.08	3.39a)	700	(5.98)	(34.53)	(0.08)	(27.21)	(87)	(1.32)
1070	4.12	34.53	0.41	3.40a)	800	5.32	34.53	0.15	27.28	80	(1.42)
					1000	4.38	34.53	0.34	27.40	69	(1.58)

SPENCER F. BAIRD; June 7, 1958; 2027 GCT; 17°03'N, 101°26'W; sounding, 580 fm; wind, direction missing, force 1; weather, cloudy; sea, high; wire angle, 30°. 104

0	29.84	34.49	3.84	0.32	0	29.84	34.49	3.84	21.42	638	0.00
8	29.45	34.45	4.00	0.34	10	29.31	34.44	4.03	21.53	628	0.06
17	28.36	34.37	4.16	0.34	20	25.94	34.30	4.16	22.54	531	0.12
26	25.16	34.30	4.12	0.48	30	24.47	34.30	3.93	22.99	488	0.17
34	22.22	34.39	2.19	1.30	50	19.49	34.53	0.83	24.57	338	0.25
42	20.36	34.47	1.14	1.84b)	75	17.92	34.60	0.46	25.00	297	0.34
58	18.78	34.56	0.65	2.10	100	15.61	34.71	0.27	25.63	236	0.40
69	18.28	34.58	0.56	2.23	150	13.88	34.83	0.13	26.10	192	0.51
79	17.32	34.62	0.39	2.29b)	200	12.80	34.84	0.05	26.32	171	0.60
119	14.62	34.78	0.22	2.50	250	11.80	34.80	0.06	26.49	155	0.69
175	13.36	34.85	0.05	2.64b)	300	10.97	34.73	0.10	26.59	146	0.77
230	12.16	34.82	0.05	2.72	400	9.56	34.65	0.12	26.78	128	0.91
306	10.86	34.72	0.11	2.84	500	8.29	34.60	0.10	26.94	113	1.04
388	9.72	34.66	0.13	3.04	600	(7.20)	(34.57)	(0.10)	(27.07)	(100)	(1.15)
580	7.37	34.57	0.10	3.30	700	(6.43)	(34.55)	(0.11)	(27.16)	(92)	(1.26)
901	5.05	34.52	0.16	3.48	800	(5.75)	(34.53)	(0.13)	(27.24)	(84)	(1.36)
					1000	(4.46)	(34.51)		(27.38)	(71)	(1.53)

SPENCER F. BAIRD; June 8, 1958; 2013 GCT; 17°56'N, 102°48'W; sounding, 100 fm; wind, 090°, force 3; weather, missing; sea, high; wire angle, 20°. 109

0	28.54	34.47		0.30	0	28.54	34.47		21.84	598	0.00
10	28.09	34.47		0.34	10	28.09	34.47		21.99	584	0.06
28	25.66	34.40		0.50	20	27.13	34.45		22.29	555	0.12
47	24.78	34.42		0.59	30	25.28	34.41		22.83	503	0.17
70	20.67	34.51		1.76	50	23.78	34.44		23.30	458	0.26
94	16.74	34.70		2.40	75	19.80	34.54		24.49	346	0.37
116	15.76	34.74		2.47	100	16.39	34.71		25.45	254	0.44
146	14.04	34.78		2.44	150	(13.88)	(34.77)		(26.05)	(197)	(0.56)

a) Duplicate values: 39 m, 0.73; 83 m, 2.22; 706 m, 3.28; 1070 m, 3.49 μg at/L.
b) Duplicate values: 42 m, 1.91; 79 m, 2.37; 175 m, 2.71 μg at/L.

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SCOT

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
122	SPENCER F. BAIRD; June 12, 1958; 2149 GCT; 17°51'N, 105°08.5'W; sounding, 1600 fm; wind, 240°, force 2; weather, partly cloudy; sea, very rough; wire angle, 33°.										
0	28.62	34.52	3.92	0.30	0	28.62	34.52	3.92	21.85	597	0.00
8	28.11	34.52	3.96	0.34	10	28.10	34.52	3.95	22.03	580	0.06
17	28.08	34.52	3.82	0.31	20	28.05	34.52	3.85	22.04	579	0.12
38	27.92	34.54	3.92	0.32	30	27.98	34.53	3.89	22.06	577	0.17
54	24.27	34.61	3.95	0.55	50	25.92	34.59	3.95	22.77	509	0.28
69	20.75	34.66	1.79	1.60	75	19.46	34.64	1.26	24.64	331	0.39
84	17.59	34.63	0.33	2.37	100	15.11	34.71	0.23	25.74	226	0.46
111	14.66	34.75	0.03	2.56a)	150	12.73	34.84	0.08	26.34	169	0.56
131	13.55	34.78	0.07	2.74	200	11.98	34.80	0.11	26.46	158	0.64
161	12.56	34.85	0.09	2.64	250	11.40	34.77	0.10	26.54	151	0.72
209	11.82	34.79	0.13	2.78	300	10.90	34.75	0.09	26.62	143	0.80
292	11.02	34.75	0.09	2.76a)	400	9.39	34.67	0.10	26.82	124	0.94
399	9.40	34.67	0.10	3.06a)	500	7.98	34.61	0.12	27.00	107	1.07
511	7.80	34.60	0.13	3.20	600	6.92	34.59	0.14	27.12	95	1.18
673	6.24	34.58	0.16	3.36a)	700	6.07	34.58	0.16	27.24	84	1.28
934	4.90	34.59	0.17	3.51a)	800	5.51	34.59	0.17	27.31	77	1.37
					1000	(4.64)	(34.59)		(27.41)	(67)	(1.53)
127	SPENCER F. BAIRD; June 13, 1958; 1801 GCT; 19°01'N, 105°34.5'W; sounding, 2580 fm; wind, direction missing, force 1; weather, partly cloudy; sea, moderate; wire angle, 07°.										
0	28.36	34.52	4.28	0.30	0	28.36	34.52	4.28	21.94	588	0.00
10	28.08	34.53	4.25	0.32	10	28.08	34.53	4.25	22.04	579	0.06
20	28.07	34.52	4.27	0.30	20	28.07	34.52	4.27	22.04	579	0.12
45	23.83	34.56	4.53	0.46	30	27.40	34.53	4.33	22.25	559	0.17
64	20.94	34.58	3.37	1.04	50	23.32	34.56	4.48	23.52	437	0.27
83	17.77	34.50	1.15	2.14	75	18.48	34.52	1.67	24.81	315	0.37
102	15.28	34.58	0.39	2.46	100	15.52	34.57	0.45	25.55	244	0.44
139	13.68	34.70	0.05	2.66	150	13.06	34.75	0.06	26.20	182	0.54
166	12.75	34.78	0.06	2.72b)	200	12.13	34.79	0.07	26.42	162	0.63
207	12.00	34.78	0.07	2.79b)	250	11.34	34.75	0.07	26.54	151	0.71
270	11.06	34.73	0.07	2.93	300	10.63	34.70	0.06	26.63	142	0.79
380	9.44	34.61	0.05	3.09	400	9.18	34.60	0.05	26.79	126	0.93
513	7.64	34.53	0.08	3.17	500	7.86	34.54	0.07	26.96	111	1.06
648	6.22	34.49	0.07	3.28	600	6.72	34.50	0.07	27.09	98	1.17
838	5.12	34.50	0.11	3.40b)	700	5.84	34.49	0.08	27.19	89	1.28
1130	3.94	34.56	0.45	3.31	800	5.30	34.50	0.10	27.26	82	1.37
					1000	4.42	34.54	0.30	27.40	69	1.54
133	SPENCER F. BAIRD; June 14, 1958; 2122 GCT; 19°37'N, 107°37'W; sounding, 1440 fm; wind, 140°, force 3; weather, partly cloudy; sea, rough; wire angle, 17°.										
0	27.88	34.67	4.39	0.32c)	0	27.88	34.67	4.39	22.20	564	0.00
10	27.82	34.68	4.43	0.32	10	27.82	34.68	4.43	22.24	560	0.06
19	27.66	34.67	4.37	0.28	20	27.64	34.67	4.37	22.29	555	0.11
43	24.79	34.63	4.80	0.36	30	27.48	34.66	4.38	22.34	551	0.17
62	22.29	34.62	4.91	0.45	50	23.66	34.63	4.95	23.48	442	0.27
81	19.98	34.59	3.01	1.16	75	20.65	34.60	3.54	24.30	363	0.37
100	16.98	34.54	1.48	2.14	100	16.98	34.54	1.48	25.18	279	0.45
136	14.10	34.61	0.48	2.51c)	150	13.67	34.67	0.39	26.02	199	0.57
162	13.22	34.79	0.31	2.78	200	12.04	34.76	0.08	26.42	162	0.66
199	12.05	34.76	0.08	2.83c)	250	11.44	34.74	0.17	26.51	153	0.74
260	11.33	34.74	0.19	3.08c)	300	10.90	34.70	0.16	26.58	146	0.82
365	10.02	34.61	0.08	3.03	400	9.48	34.58	0.08	26.73	133	0.97
494	7.80	34.52	0.10	3.18c)	500	7.74	34.52	0.09	26.96	110	1.10
628	6.48	34.49	0.07	3.33c)	600	6.72	34.50	0.07	27.08	99	1.21
816	5.20	34.47	0.12	3.31c)	700	5.94	34.48	0.08	27.17	90	1.31
1108	3.98	34.52	0.42	3.32c)	800	5.29	34.47	0.11	27.24	84	1.41
					1000	4.41	34.49	0.31	27.36	72	1.58

a) Duplicate values: 111 m, 2.64; 292 m, 2.84; 399 m, 2.99; 673 m, 3.27; 934 m, 3.39 µg at/L.
b) Duplicate values: 166 m, 2.80; 207 m, 2.72; 838 m, 3.33 µg at/L.
c) Duplicate values: 0 m, 0.25; 136 m, 2.66; 199 m, 2.14; 260 m, 3.01; 494 m, 3.04; 628 m, 3.25; 816 m, 3.38; 1108 m, 3.25 µg at/L.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m

SPENCER F. BAIRD; June 15, 1958; 1808 GCT; 21°05'N, 106°16'W; sounding, 1750 fm; wind, 240°, force 2; weather, cloudy; sea, moderate; wire angle, 10°. 139

0	28.72	34.95	4.44	0.30	0	28.72	34.95	4.44	22.14	569	0.00
10	28.63	34.94	4.45	0.31	10	28.63	34.94	4.45	22.16	567	0.06
20	28.52	34.93	4.45	0.30	20	28.52	34.93	4.45	22.20	564	0.11
44	23.48	34.64	4.40	0.58	30	26.20	34.76	4.57	22.81	506	0.17
64	19.27	34.62	1.10	1.98	50	23.00	34.67	4.01	23.71	420	0.26
83	17.43	34.65	0.36	2.34	75	18.08	34.64	0.54	25.00	297	0.35
103	15.90	34.69	0.19	2.47	100	16.12	34.68	0.20	25.49	250	0.42
140	14.30	34.76	0.07	2.58	150	14.24	34.79	0.05	26.00	202	0.53
166	13.33	34.78	0.06	2.66	200	12.69	34.81	0.06	26.32	171	0.63
206	12.60	34.81	0.06	2.70a)	250	11.96	34.79	0.06	26.46	158	0.71
268	11.68	34.78	0.08	2.88a)	300	11.25	34.75	0.07	26.56	149	0.79
375	10.29	34.69	0.08	2.83a)	400	9.82	34.66	0.07	26.74	132	0.94
506	7.56	34.52	0.05	3.72a)	500	7.63	34.53	0.07	26.98	109	1.07
639	6.24	34.49	0.08	3.36a)	600	6.56	34.49	0.07	27.10	97	1.18
827	5.14	34.50	0.14	3.32a)	700	5.82	34.49	0.08	27.19	89	1.28
1118	3.94	34.54	0.44	3.28	800	5.28	34.50	0.10	27.27	81	1.38
					1000	4.40	34.52	0.31	27.39	70	1.55

SPENCER F. BAIRD; June 16, 1958; 1803 GCT; 22°18'N, 108°32'W; sounding, 2000 fm; wind, 260°, force 3; weather, partly cloudy; sea, moderate; wire angle, 16°. 143

0	27.64	35.04	4.42	0.40	0	27.64	35.04	4.42	22.56	529	0.00
10	27.58	35.03	4.44	0.42	10	27.58	35.03	4.44	22.58	528	0.05
19	27.56	35.04	4.41	0.41	20	27.56	35.04	4.41	22.60	525	0.10
43	23.34	34.78	5.02	0.50	30	24.42	34.82	5.03	23.40	448	0.15
62	20.28	34.79	3.35	1.30	50	20.81	34.73	3.87	24.36	357	0.23
81	16.96	34.69	0.37	2.48	75	17.19	34.69	0.60	25.25	273	0.32
100	15.27	34.68	0.10	2.54b)	100	15.27	34.68	0.10	25.68	232	0.38
135	13.42	34.76	0.07	2.67	150	12.97	34.79	0.07	26.25	178	0.48
162	12.59	34.79	0.08	2.75	200	11.80	34.75	0.07	26.46	158	0.57
200	11.80	34.75	0.07	2.77	250	11.12	34.72	0.07	26.55	149	0.65
260	11.00	34.71	0.07	2.87b)	300	10.48	34.67	0.07	26.63	142	0.72
364	9.60	34.60	0.08	3.09b)	400	9.08	34.57	0.08	26.79	127	0.86
492	7.76	34.52	0.08	3.22	500	7.68	34.52	0.08	26.97	110	0.99
621	6.37	34.53	0.12	3.24	600	6.55	34.52	0.11	27.12	95	1.10
801	5.24	34.50	0.16	3.35b)	700	5.84	34.52	0.14	27.22	86	1.20
1081	4.17	34.54	0.31	3.48b)	800	5.25	34.50	0.16	27.27	81	1.29
					1000	4.44	34.53	0.27	27.39	70	1.46

SPENCER F. BAIRD; June 17, 1958; 1750 GCT; 23°52'N, 111°30'W; sounding, 150 fm; wind, 320°, force 2; weather, partly cloudy; sea, moderate; wire angle, 03°. 145

0	22.31	34.38	5.10	0.45	0	22.31	34.38	5.10	23.68	422	0.00
10	22.16	34.36	5.09	0.48	10	22.16	34.36	5.09	23.71	420	0.04
30	18.52	34.25	4.97	0.76	20	19.66	34.20	5.24	24.26	367	0.08
50	15.86	34.20	2.85	1.54	30	18.52	34.25	4.97	24.59	336	0.12
74	14.18	34.17	1.97	1.92	50	15.86	34.20	2.85	25.18	279	0.18
98	13.66	34.34	1.28	2.28c)	75	14.14	34.18	1.86	25.54	245	0.24
120	13.35	34.61	0.57	2.65	100	13.65	34.36	1.27	25.79	222	0.30
157	12.47	34.60	0.40	2.84c)	150	12.66	34.60	0.43	26.18	185	0.40
193	11.88	34.63	0.23	2.77c)	200	11.80	34.63	0.21	26.36	167	0.50
238	11.22	34.63	0.20	2.86							

a) Duplicate values: 206 m, 2.60; 268 m, 2.43; 375 m, 3.00; 506 m, 3.08; 639 m, 3.17; 827 m, 3.40 µg at/L.
b) Duplicate values: 100 m, 2.63; 260 m, 2.97; 364 m, 2.97; 801 m, 3.46; 1081 m, 3.37 µg at/L.
c) Duplicate values: 98 m, 2.36; 157 m, 2.94; 193 m, 2.93 µg at/L.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
SPENCER F. BAIRD; June 18, 1958; 1750 GCT; 26°38'N, 114°10'W; sounding, 1150 fm; wind, 310°, force 2; weather, cloudy; sea, slight; wire angle, 00°.											
0	16.76	33.86	5.96	0.78	0	16.76	33.86	5.96	24.72	324	0.00
10	15.55	33.74	5.39	0.84	10	15.55	33.74	5.39	24.90	306	0.03
20	14.14	33.69	4.58	1.00	20	14.14	33.69	4.58	25.17	281	0.06
45	12.14	33.82	3.01	1.62	30	13.20	33.75	3.85	25.40	258	0.09
65	12.16	33.97	2.41	1.86	50	12.12	33.88	2.85	25.71	229	0.14
84	12.32	34.21	1.44	2.18	75	12.34	34.16	1.50	25.88	212	0.19
103	11.61	34.29	1.21	2.26a)	100	11.77	34.27	1.25	26.09	193	0.24
142	11.77	34.46	0.63	2.56	150	11.76	34.50	0.62	26.27	176	0.34
170	11.65	34.51	0.48	2.72	200	11.52	34.54	0.34	26.34	169	0.43
211	11.44	34.56	0.30	2.72	250	10.88	34.54	0.28	26.46	158	0.51
274	10.49	34.52	0.29	2.80	300	10.08	34.50	0.30	26.57	148	0.59
384	8.90	34.45	0.29	3.05	400	8.69	34.44	0.28	26.75	130	0.74
519	6.90	34.34	0.26	3.20a)	500	7.07	34.35	0.27	26.90	116	0.87
655	5.99	34.37	0.20	3.78	600	6.37	34.36	0.22	27.02	104	0.99
845	4.78	34.42	0.31	3.45a)	700	5.69	34.38	0.22	27.12	95	1.09
1136	3.74	34.49	0.63	3.40	800	5.05	34.41	0.28	27.22	86	1.19
					1000	4.14	34.47	0.51	27.36	72	1.37

a) Duplicate values: 103 m, 2.44; 519 m, 3.00; 845 m, 3.13 μg at/L.

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m

SPENCER F. BAIRD; November 22, 1958; 1650 GCT; 13°37'N, 92°57'W; sounding, 2800 fm; wind, 270°, force 2; weather, clear; sea, moderate; wire angle, 08°.[a] 2

0	28.89	33.04	-	0.21	712	0	28.89	33.04		20.66	712	0.00
9	28.76	33.02	-	0.15	709	10	28.75	33.02		20.69	708	0.07
19	28.47	33.06	0.88r	0.46	697	20	28.45	33.06		20.82	697	0.14
28	26.63	34.14	5.63	0.64	563	30	25.70	34.23	4.98	22.57	528	0.20
38	20.28	34.67	1.85	1.5	348	50	17.35	34.70	1.13	25.22	276	0.28
48	17.73	34.70	1.16	1.9	284	75	14.95	34.84	0.48	25.87	214	0.34
58	16.01	34.72	0.96	2.01b)	244	100	14.13	34.85	0.53	26.06	196	0.40
77	14.82	34.84	0.46	2.4	210	150	13.06	34.85	0.39	26.28	175	0.49
96	14.23	34.85	0.54	2.4	198	200	12.45	34.86	0.28	26.41	163	0.58
149	13.06	34.85	0.38	2.4	174	250	11.86	34.82	0.20	26.50	154	0.66
196	12.50	34.86	0.29	2.5 b)	163	300	11.22	34.78	0.13	26.58	147	0.74
293	11.30	34.78	0.13	2.6 b)	148	400	9.89	34.69	0.00	26.75	131	0.88
386	10.10	34.70	0.00	3.00	133	500	8.22	34.62	0.00	26.96	111	1.01
479	8.57	34.63	0.00	3.3	114	600	7.03	34.60	0.01	27.12	96	1.12
578	7.25	34.60	0.00	3.4	98	700	6.22	34.58	0.07	27.22	86	1.23
774	5.72	34.57	0.11	3.3 c)	81	800	5.57	34.57	0.13	27.29	79	1.32
971	4.74	34.59	0.18	3.6 b)	68	1000	(4.63)	(34.60)		(27.42)	(67)	(1.48)

SPENCER F. BAIRD; November 23, 1958; 0045 GCT; 14°22'N, 93°07'W; sounding, 280 fm; wind, 310°, force 2; weather, partly cloudy; sea, moderate; wire angle, 04°. 3

0	29.31	32.83	4.39	0.087	740	0	29.31	32.84	4.39	20.37	740	0.00
9	28.88	32.75	4.38	0.089	733	10	28.88	32.77	4.41	20.46	730	0.07
19	29.50	33.44	4.57	0.20	703	20	29.50	33.44	4.58	20.76	702	0.15
29	29.08	33.58	4.63	0.24	680	30	28.90	33.62	4.62	21.07	672	0.21
39	24.70	34.52	4.60	0.49	478	50	19.25	34.68	1.84	24.73	323	0.31
59	17.61	34.72	1.16	2.1	280	75	16.12	34.78	0.66	25.57	243	0.38
78	15.85	34.79	0.59	2.2 d)	236	100	14.60	34.85	0.49	25.96	206	0.44
97	14.74	34.85	0.50	2.3 d)	208	150	13.20	34.83	0.38	26.24	179	0.54
149	13.21	34.83	0.35	2.5	179	200	12.60	34.83	0.43	26.36	168	0.63
196	12.64	34.83	0.43	2.5 d)	168	250	11.91	34.81	0.32	26.48	156	0.71
294	11.32	34.78	0.13	2.7	148	300	11.25	34.78	0.13	26.57	147	0.79
389	10.21	34.70	0.00	2.9	135	400	10.06	34.70	0.00	26.72	133	0.94
489	8.46	34.65	0.00	3.3	112	500	(8.29)	(34.65)		(26.97)	(110)	(1.07)

SPENCER F. BAIRD; November 23, 1958; 0720 GCT; 14°56.5'N, 93°06.5'W; sounding, 18 fm; wind, 080°, force 3; weather, partly cloudy; sea, moderate; wire angle, 00°. 4

0	30.10	32.68	4.16	0.075	777	0	30.10	32.68	4.19	19.98	777	0.00
5	30.06	32.66	4.20	0.042	777	10	30.10	32.67	4.19	19.97	778	0.08
9	30.10	32.66	4.16	0.075	778	20	29.40	33.51	4.29	20.84	694	0.15
14	30.14	33.02	4.30	0.10	754							
19	29.52	33.48	4.30	0.22e)	700							
24	28.68	33.62	4.14	0.334	665							

SPENCER F. BAIRD; November 23, 1958; 1340 GCT; 15°39'N, 93°59.5'W; sounding, 30 fm; wind, 360°, force 4; weather, partly cloudy; sea, rough; wire angle, 16°. 5

0	28.27	33.48	3.34	0.34	660	0	28.27	33.48	3.34	21.19	660	0.00
19	26.34f)	33.96	3.57	0.79	566	10	28.08	33.53	3.36	21.28	652	0.07
24	23.60	34.39	1.99	1.2	457	20	26.00	33.97	3.53	22.28	556	0.13
28	22.29	34.58	2.00	1.3 c)	407	30	22.00	34.60	1.94	23.94	398	0.17
38	19.98	34.69	1.32	1.7	340							
47	17.99	34.75	0.88	2.0	287							

a) The hydrographic and biological data collected by Tuna Oceanography Research (STOR) of Scripps Institution on Cruise TO-58-2 have been published in U. S. Fish and Wildlife Service Special Scientific Report--Fisheries No. 420.

b) Duplicate values: 58 m, 2.08; 196 m, 2.6; 293 m, 2.08; 971 m, 3.9 µg at/L.

c) Single determination.

d) Duplicate values: 78 m, 2.3; 97 m, 2.4; 196 m, 2.2 µg at/L.

e) Duplicate value, 0.29 µg at/L.

f) Alternate value, 26.12°C, not used in interpolation.

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m
6	SPENCER F. BAIRD; November 23, 1958; 2057 GCT; 14°59.5'N, 94°01.5'W; sounding, 140 fm; wind, 330°, force 3; weather, clear; sea, rough; wire angle, 08°.											
0	27.94	33.33	4.42	0.39	661	0	27.94	33.33	4.42	21.18	661	0.00
9	27.84	33.35	4.47	0.38	657	10	27.81	33.36	4.48	21.25	655	0.07
14	25.42a)	33.95	3.91	0.83b)	540	20	18.20	34.70	1.78	25.01	296	0.11
19	18.39	34.69	1.89	1.7 b)	300	30	16.77	34.77	0.84	25.41	258	0.14
24	17.52	34.71	1.32	1.9	278	50	15.42	34.85	0.39	25.78	222	0.19
33	16.35	34.81	0.63	2.2	245	75	14.97	34.85	0.38	25.88	213	0.24
48	15.47	34.85	0.37	2.5	224	100	14.48	34.84	0.40	25.98	204	0.30
100	14.48	34.84	0.40	2.5	204	150	13.21	34.83	0.40	26.24	179	0.39
147	13.22	34.83	0.41	2.4	179	200	(12.34)	(34.83)	(0.16)	(26.41)	(163)	(0.48)
199	12.38	34.83	0.15	2.8 b)	164							
7	SPENCER F. BAIRD; November 24, 1958; 0305 GCT; 14°21.5'N, 94°02'W; sounding, 2100 fm; wind, 040°, force 2; weather, clear; sea, moderate; wire angle, 14°.											
0	28.90	33.39	4.38	0.33	687	0	28.90	33.39	4.38	20.92	687	0.00
9	28.90	33.43	4.34	0.33	684	10	28.89	33.43	4.34	20.95	683	0.07
14	27.80	33.69	4.31	0.52	631	20	20.30	34.65	2.50	24.44	350	0.12
19	20.91	34.63	2.65	1.4	367	30	17.64	34.70	1.58	25.14	283	0.15
28	17.95	34.70	1.72	1.9	290	50	15.22	34.72	0.79	25.72	228	0.20
38	16.33	34.67	1.05	2.1 c)	255	75	14.41	34.83	0.46	25.98	203	0.26
46	15.39	34.70	0.83	2.2 c)	232	100	13.65	34.82	0.32	26.14	188	0.31
70	14.59	34.83	0.50	2.4	206	150	12.71	34.86	0.16	26.36	167	0.40
98	13.68	34.82	0.33	2.50	189	200	12.01	34.80	0.23	26.45	159	0.48
143	12.84	34.87	0.13	2.4 c)	169	250	11.52	34.79	0.20	26.54	150	0.56
193	12.11	34.81	0.23	2.7	160	300	10.98	34.76	0.13	26.62	144	0.64
286	11.17	34.78	0.14	2.8	145	400	9.60	34.63	0.10	26.75	130	0.78
382	9.90	34.69	0.10	3.1	134	500	8.08	34.60	0.10	26.97	110	0.91
478	8.34	34.61	0.10	3.4	113	600	7.09	34.58	0.14	27.10	97	1.02
576	7.28	34.59	0.10	3.5	100	700	6.37	34.57	0.28	27.19	89	1.13
774	5.90	34.56	0.35	- d)	84	800	5.74	34.56	0.35	27.26	82	1.22
976	4.70	34.55	0.22	3.8 c)	71	1000	(4.59)	(34.55)	(0.22)	(27.39)	(70)	(1.40)
8	SPENCER F. BAIRD; November 24, 1958; 0903 GCT; 13°41.5'N, 94°04'W; sounding, 2250 fm; wind, 280°, force 3; weather, missing; sea, rough; wire angle, 08°.											
0	28.19	33.47	4.42	0.36	659	0	28.19	33.47	4.42	21.21	659	0.00
14	23.88	34.51	5.50	0.72	456	10	28.19	33.47	4.42	21.21	659	0.07
19	21.36	34.65	2.73	1.5 e)	378	20	20.60	34.67	2.48	24.37	356	0.12
23	18.52	34.70	1.88	1.8	303	30	17.17	34.70	1.17	25.26	272	0.15
28	17.36	34.70	1.25	2.1	276	50	15.46	34.74	0.90	25.69	231	0.20
38	16.28	34.70	0.86	2.4 e)	252	75	14.40	34.82	0.55	25.98	203	0.25
48	15.54	34.73	0.91	2.3	234	100	13.68	34.83	0.62	26.14	188	0.30
71	14.58	34.81	0.53	2.5	208	150	12.85	34.83	0.48	26.31	172	0.40
100	13.68	34.83	0.62	2.5 e)	188	200	12.25	34.81	0.47	26.42	162	0.48
147	12.89	34.83	0.48	2.5	172	250	11.73	34.78	0.33	26.49	155	0.56
197	12.28	34.81	0.47	2.7	163	300	11.18	34.75	0.18	26.58	147	0.64
293	11.23	34.76	0.20	2.9	148	400	9.65	34.67	0.06	26.77	128	0.79
388	9.84	34.68	0.05	3.1 e)	130	500	7.83	34.62	0.09	27.02	105	0.91
485	8.02	34.63	0.08	3.6 e)	106	600	6.91	(34.57)	0.12	(27.11)	(96)	(1.02)
584	7.04	34.57	0.11	3.5	98	700	6.15		0.16			
782	5.58	-	0.18	-		800	5.47		0.19			
980	4.58	34.56	0.23	3.8	69	1000	(4.53)		(0.23)			

a) Mean value of 25.35 and 25.48°C.
b) Duplicate values: 14 m, 0.76; 19 m, 1.6; 199 m, 2.7 µg at/L.
c) Duplicate values: 38 m, 2.2; 46 m, 2.3; 143 m, 2.6; 976 m, 3.9 µg at/L.
d) Sample lost.
e) Duplicate values: 19 m, 1.3; 38 m, 2.1; 100 m, 2.7; 388 m, 3.2; 485 m, 3.4 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m

SPENCER F. BAIRD; November 24, 1958; 1903 GCT; 13°39'N, 94°52'W; sounding, 2160 fm; wind, 020°, force 3; weather, clear; sea, rough; wire angle, 02°. 9

0	27.59	33.32	4.48	0.29	651	0	27.59	33.32	4.48	21.29	651	0.00
9	27.56	33.33	4.43	0.29	649	10	27.55	33.32	4.42	21.31	649	0.07
14	27.53	33.32	4.38	0.29	649	20	27.45	33.33	4.37	21.32	648	0.13
24	24.33	33.89	3.36	0.92	514	30	18.14	34.68	0.58	25.01	296	0.18
29	18.20	34.67	0.60	2.2	298	50	15.42	34.77	0.40	25.71	229	0.23
38	16.89	34.71	0.30	2.5	265	75	14.18	34.80	0.18	26.02	200	0.28
48	15.59	34.76	0.39	2.4	232	100	13.39	34.83	0.12	26.20	182	0.33
73	14.22	34.80	0.18	2.6	201	150	12.40	34.85	0.10	26.42	162	0.42
101	13.38	34.83	0.11	2.7	182	200	11.70	34.79	0.09	26.50	154	0.50
148	12.42	34.85	0.10	2.7 a)	163	250	11.11	34.74	0.08	26.57	147	0.58
199	11.73	34.79	0.09	2.8	154	300	10.50	34.70	0.05	26.65	140	0.66
297	10.53	34.70	0.05	3.0	140	400	8.67	34.65	0.09	26.91	115	0.79
396	8.75	34.65	0.08	3.4 a)	116	500	7.50	34.58	0.11	27.04	104	0.91
495	7.56	34.58	0.12	3.7 a)	104	600	6.60	34.57	0.08	27.16	92	1.01
595	6.64	34.57	0.08	3.5	92	700	5.93	34.56	0.09	27.24	84	1.11
795	5.40	34.56	0.13	3.7 a)	78	800	5.38	34.56	0.15	27.30	78	1.20
995	4.52	34.56	0.28	3.8	68	1000	(4.49)	(34.56)	(0.28)	(27.41)	(68)	(1.37)

SPENCER F. BAIRD; November 25, 1958; 0752 GCT; 14°18'N, 95°03'W; sounding, 2200 fm; wind, 020°, force 6; weather, clear; sea, rough; wire angle, 22°. 10

0	27.14	33.78	4.45	0.40	604	0	27.14	33.78	4.45	21.78	604	0.00
19	27.14	33.77	4.40	0.44	604	10	27.14	33.78	4.43	21.78	604	0.06
23	25.39	33.93	3.65	0.77b)	541	20	27.11	33.78	4.39	21.79	603	0.12
29	18.90	34.64	1.15	2.1	316	30	18.62	34.66	1.03	24.87	309	0.17
38	17.24	34.73	0.40	2.2 b)	271	50	15.92	34.78	0.32	25.62	238	0.22
47	16.16	34.78	0.33	2.4	243	75	14.41	34.78	0.20	25.95	206	0.28
61	15.18	34.77	0.29	2.5	223	100	13.42	34.82	0.17	26.18	184	0.33
79	14.22	34.79	0.18	2.6	202	150	12.60	34.81	0.09	26.35	169	0.42
103	13.35	34.82	0.15	2.6	182	200	11.99	34.76	0.05	26.43	161	0.50
151	12.60	34.81	0.08	2.6	169	250	11.38	34.75	0.08	26.54	151	0.58
198	12.00	34.76	0.05	2.7	161	300	10.63	34.74	0.08	26.66	140	0.66
291	10.80	34.75	0.08	2.9	141	400	8.89	34.63	0.07	26.86	120	0.80
383	9.20	34.64	0.05	3.2	124	500	7.58	34.60	0.10	27.04	103	0.91
478	7.80	34.60	0.10	3.5	106	600	6.67	34.60	0.05	27.17	90	1.02
572	6.89	34.60	0.05	3.5	93	700	5.92	34.60	0.08	27.27	81	1.11
764	5.50	34.60	0.11	3.6 b)	76	800	5.33	34.60	0.13	27.34	74	1.20
967	4.64	34.58	0.20	4.0 b)	68	1000	(4.50)	(34.58)	(0.21)	(27.42)	(67)	(1.36)

SPENCER F. BAIRD; November 26, 1958; 0016 GCT; 15°02'N, 95°07.5'W; sounding, 2000 fm; wind, 010°, force 2; weather, clear; sea, slight; wire angle, 03°. 11

0	25.25	33.97	4.87	0.67	534	0	25.25	33.97	4.87	22.51	534	0.00
10	25.10	33.98	4.54	0.72	529	10	25.10	33.98	4.54	22.56	529	0.05
19	24.87	33.98	4.12	0.84	522	20	24.86	33.98	4.10	22.64	522	0.11
29	23.76	34.13	3.50	1.1	480	30	23.60	34.16	3.42	23.14	474	0.16
39	22.16	34.38	2.59	1.5	418	50	19.41	34.63	1.65	24.65	330	0.24
48	19.77	34.61	1.77	1.9	340	75	15.70	34.78	0.49	25.66	234	0.31
58	18.14	34.69	1.23	2.1	295	100	14.45	34.84	0.45	26.00	202	0.36
76	15.64	34.78	0.48	2.6 c)	232	150	13.18	34.85	0.32	26.26	177	0.36
99	14.53	34.84	0.45	2.5	204	200	12.40	34.85	0.32	26.41	163	0.55
144	13.26	34.85	0.32	2.7	179	250	11.79	34.81	0.23	26.50	154	0.63
187	12.60	34.85	0.33	2.6	166	300	10.90	34.75	0.10	26.62	143	0.70
278	11.33	34.78	0.13	3.0 c)	148	400	8.90	34.64	0.09	26.87	119	0.84
365	9.51	34.67	0.08	3.3	126	500	7.67	34.60	0.10	27.02	105	0.96
458	8.13	34.60	0.10	3.6 c)	110	600	6.93	34.58	0.08	27.12	96	1.07
547	7.28	34.59	0.08	3.6	100	700	6.32	34.56	0.08	27.19	88	1.17
736	6.10	34.56	0.08	3.8 c)	86	800	5.75	34.56	0.11	27.26	82	1.27
929	5.06	34.56	0.14	3.8	74	1000	(4.72)	(34.56)		(27.38)	(71)	(1.44)

a) Duplicate values: 148 m, 2.6; 396 m, 3.3; 495 m, 3.4; 795 m, 3.6 µg at/L.
b) Duplicate values: 23 m, 8.4; 38 m, 2.3; 764 m, 3.7; 967 m, 3.8 µg at/L.
c) Duplicate values: 76 m, 2.5; 278 m, 2.9; 458 m, 3.5; 736 m, 3.7 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m

12 SPENCER F. BAIRD; November 26, 1958; 0739 GCT; 15°36'N, 94°55'W; sounding, 150 fm; wind, 360°, force 5; weather, partly cloudy; sea, rough; wire angle, 35°.

0	25.86	33.77	4.36	0.47a)	566	0	25.86	33.77	4.36	22.17	566	0.00
8	25.88	33.78	4.28	0.54	567	10	25.87	33.78	4.27	22.17	566	0.06
16	25.84	33.78	4.25	0.54	565	20	25.53	33.84	4.11	22.34	551	0.11
20	25.53	33.84	4.11	0.62	551	30	19.25	34.62	1.54	24.69	326	0.16
32	18.72	34.66	1.34	2.0	312	50	15.82	34.79	0.50	25.64	236	0.21
40	16.80	34.78	0.65	2.2 a)	258	75	14.79	34.78	0.48	25.86	214	0.27
58	15.29	34.79	0.48	2.4	224	100	14.18	34.85	0.37	26.06	196	0.32
77	14.74	34.78	0.49	2.5 a)	214	150	13.11	34.85	0.20	26.28	176	0.42
119	13.52	34.85	0.18	2.7	183	200	12.45	34.84	0.13	26.40	164	0.50
161	12.98	34.85	0.20	2.6	173							
211	12.32	34.83	0.10	2.7	162							

13 SPENCER F. BAIRD; November 26, 1958; 1206 GCT; 15°42.5'N, 94°56'W; sounding, 100 fm; wind, 360°, force 5; weather, clear; sea, rough; wire angle, 30°.

0	26.46	33.66	4.14	0.45	592	0	26.46	33.66	4.14	21.90	592	0.00
13	26.47	33.68	4.44	0.43	591	10	26.47	33.68	4.38	21.92	591	0.06
17	26.46	33.69	4.05	0.43	590	20	25.80	33.74	3.82	22.17	567	0.12
21	25.26	33.77	3.69	0.64	548	30	17.65	34.72	0.91	25.17	281	0.16
40	16.74	34.79	0.73	2.3	256	50	16.19	34.79	0.65	25.56	244	0.21
77	15.01	34.78	0.46	2.4	219	75	15.05	34.78	0.47	25.80	220	0.27
115	13.72	34.83	0.13	3.6 b)	189	100	14.21	34.81	0.28	26.02	200	0.32

14 SPENCER F. BAIRD; November 28, 1958; 1242 GCT; 15°39.5'N, 96°02'W; sounding, 180 fm; wind, 360°, force 1; weather, clear; sea, moderate; wire angle, 35°.

0	25.85	33.84	4.79	0.34	561	0	25.85	33.84	4.79	22.22	562	0.00
8	25.51	33.95	5.64	0.30	543	10	25.40	33.96	5.42	22.45	540	0.06
16	25.13	33.96	4.55	0.55	532	20	25.08	33.96	4.42	25.55	530	0.11
24	25.05	33.96	4.39	0.81c)	529	30	24.80	33.98	3.99	22.65	520	0.16
31	24.76	33.98	3.95	0.73	520	50	20.15	34.45	2.10	24.32	362	0.25
38	24.15	34.05	3.54	0.90	497	75	14.82	34.82	0.36	25.89	212	0.32
44	21.55	34.32	2.72	1.4	407	100	14.25	34.82	0.31	26.02	200	0.38
50	20.15	34.45	2.10	1.7	362	150	13.18	34.85	0.33	26.26	177	0.47
55	19.58	34.49	1.83	1.7	344	200	12.62	34.84	0.30	26.36	168	0.56
68	15.40	34.78	0.40	2.3	227							
81	14.64	34.83	0.35	2.4	207							
96	14.36	34.82	0.31	2.4	202							
133	13.45	34.85	0.32	2.5	182							
172	12.91	34.85	0.35	2.6	172							
215	12.50	34.83	0.27	2.6	166							

15 SPENCER F. BAIRD; November 28, 1958; 2009 GCT; 14°55'N, 95°59'W; sounding, 2243 fm; wind, calm; weather, clear; sea, moderate; wire angle, 05°.

0	26.86	33.84	5.55	0.18	592	0	26.86	33.84	5.55	21.91	592	0.00
19	25.72	33.87	4.90	0.31	555	10	26.43	33.85	5.34	22.06	578	0.06
38	24.38	34.07	3.54	0.88	502	20	25.71	33.87	4.87	22.30	554	0.12
57	23.43	34.18	3.32	1.10	468	30	24.90	33.97	4.03	22.62	524	0.17
66	22.59	34.29	2.78	1.20	436	50	23.83	34.13	3.40	23.06	482	0.27
75	19.37	34.54	1.67	1.8 d)	336	75	19.37	34.54	1.67	24.60	336	0.37
84	18.72	34.63	1.46	1.9	312	100	15.20	34.80	0.41	25.78	222	0.44
106	14.78	34.81	0.37	2.4	212	150	13.60	34.82	0.38	26.15	188	0.54
142	13.78	34.82	0.40	2.4	190	200	12.65	34.81	0.16	26.34	170	0.64
195	12.74	34.82	0.18	2.6	172	250	11.90	34.79	0.11	26.46	158	0.72
294	11.28	34.77	0.10	2.8 d)	148	300	11.19	34.76	0.10	26.58	146	0.80
390	9.88	34.69	0.09	3.2	130	400	9.69	34.68	0.09	26.78	128	0.95
487	7.90	34.61	0.00	3.4	106	500	7.75	34.61	0.01	27.02	104	1.05
584	6.91	34.58	0.07	3.5	95	600	6.78	34.58	0.07	27.14	94	1.18
682	6.21	34.56	0.07	3.6	88	700	6.09	34.56	0.08	27.21	86	1.28
782	5.60	34.54	0.11	3.6	82	800	5.50	34.54	0.12	27.27	81	1.37
984	4.58	34.55	0.23	4.0	70	1000	(4.52)	(34.55)	(0.23)	(27.40)	(69)	(1.54)

a) Duplicate values: 0 m, 0.36; 40 m, 2.4; 77 m, 2.0 µg at/L.

b) Duplicate value, 3.2 µg at/L.

c) Duplicate value, 0.60 µg at/L.

d) Duplicate values: 75 m, 1.7; 294 m, 2.7 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m

SPENCER F. BAIRD; November 29, 1958; 1120 GCT; 14°18'N, 96°03.5'W; sounding, 1840 fm; wind, 180°, force 1; weather, clear; sea, slight; wire angle, 44°. 16

0	26.21	33.83	5.27		572	0	26.21	33.83	5.27	22.11	572	0.00
9	26.33r	33.82	5.29		568	10	26.00	33.82	5.28	22.17	566	0.06
17	25.72	33.90	4.90		552	20	25.59	33.92	4.79	22.36	548	0.11
25	25.34	33.93	4.55		540	30	25.05	33.97	4.23	22.56	529	0.17
33	24.86	34.00	4.00		521	50	19.04	34.59	0.97	24.72	324	0.25
41	22.00a)	34.37	2.38		415	75	15.20	34.78	0.35	25.78	223	0.32
47	20.31	34.49	1.77		362	100	14.00	34.81	0.22	26.06	196	0.37
54	17.65	34.70	0.30		282	150	12.78	34.84	0.24	26.33	170	0.47
61	16.40	34.74	0.12		252							
74	15.27	34.78	0.36		224							
94	14.24	34.79	0.18		202							
113	13.58	34.84	0.32		185							
158	12.64	34.83	0.23		168							
318p	10.56	34.72	0.13									
382p	9.14	34.64	0.08									

SPENCER F. BAIRD; November 30, 1958; 0039 GCT; 13°45'N, 97°09'W; sounding, 1850 fm; wind, 020°, force 6; weather, clear; sea, very rough; wire angle, 40°. 18

0	29.16	33.28	4.45	0.055	704	0	29.16	33.28	4.45	20.74	704	0.00
8	29.16	33.27	4.40	0.090	704	10	29.16	33.27	4.40	20.74	704	0.07
17	29.16	33.25	4.32	0.062	705	20	29.12	33.25	4.31	20.74	704	0.14
25	28.47	33.35	4.36	0.11	676	30	24.40	34.04	3.04	22.82	505	0.20
33	23.18	34.22	2.51	1.1	458	50	19.20	34.65	0.93	24.72	323	0.28
44	20.06	34.60	1.22	1.8	348	75	15.83	34.78	0.36	25.64	236	0.36
52	17.44	34.72	0.49	2.2	276	100	14.66	34.79	0.15	25.90	211	0.41
64	16.59	34.78	0.48	2.3	252	150	12.93	34.82		26.29	174	0.51
83	15.31	34.78	0.23	2.4	226	200	12.08	34.84		26.46	158	0.60
123	13.84	34.82	0.10	2.6	192	250	11.38	34.82	0.09	26.58	146	0.67
157	12.76	34.82	0.73r	-	171	300	10.61	34.75	0.08	26.67	138	0.75
224	11.77	34.84	0.10	2.7	151							
291	10.76	34.76	0.08	2.9	140							
359	9.56	34.67	0.08	3.1	126							

SPENCER F. BAIRD; November 30, 1958; 0714 GCT; 14°21'N, 97°00.5'W; sounding, 1080 fm; wind, 020°, force 5; weather, clear; sea, rough; wire angle, 36°. 19

0	28.36	33.53	4.50	0.11	659	0	28.36	33.53	4.50	21.20	659	0.00
8	28.32	33.53	4.47	0.10	658	10	28.30	33.53	4.47	21.21	658	0.07
16	27.48	33.68	4.87	0.05	622	20	27.00	33.65	4.62	21.72	610	0.13
24	26.80	33.64	4.50	0.22	604	30	26.50	33.65	4.17	21.88	594	0.19
31	26.44	33.65	4.04	0.28	593	50	26.17	33.68	4.03	22.00	582	0.31
42	26.30	33.67	3.78	-	587	75	16.45	34.76	0.56	25.48	251	0.41
51	26.14	33.68	4.07	0.42	582	100	14.64	34.79	0.20	25.91	210	0.47
61	20.71	34.35	1.79	1.6	382	150	13.23	34.84	0.21	26.24	179	0.57
79	15.91	34.79	0.42	2.3	237	200	12.31	34.85	0.13	26.44	160	0.66
114	14.14	34.79	0.18	2.6 b)	200	250	11.55	34.82	0.08	26.56	149	0.74
143	13.39	34.83	0.22	2.1 b)	182	300	10.72	34.74	0.08	26.65	140	0.82
202	12.26	34.85	0.11	2.6	160	400	9.10	34.64	0.10	26.84	122	0.95
262	11.34	34.80	0.08	2.8	147	500	(7.61)	(34.58)		(27.03)	(104)	(1.07)
323	10.32	34.71	0.08	2.9	136							
454	8.21	34.60	0.12	3.3	112							

a) Mean value of 21.91 and 22.08°C.
b) Duplicate values: 114 m, 2.5; 143 m, 2.6 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m
20	SPENCER F. BAIRD; November 30, 1958; 1953, 2013 GCT; 15°07'N, 96°55.5'W; sounding, 2090 fm; wind, 060°, force 3; weather, partly cloudy; sea, moderate; wire angle, 40°, 05°.											
0	27.44	33.78	5.08	0.11	614	0	27.44	33.78	5.08	21.68	614	0.00
30	25.40	33.95	4.35	0.36a)	540	10	26.40	33.88	4.69	22.08	575	0.06
45	25.28	33.95	4.39	0.48	537	20	25.78	33.93	4.47	22.32	553	0.12
52	25.15	33.99	4.19	0.50	530	30	25.40	33.95	4.35	22.45	540	0.17
60	25.08	33.98	4.10	0.56	529	50	25.18	33.99	4.23	22.54	531	0.28
						75	23.55	34.17	3.36	23.16	472	0.40
86	18.50	34.56	1.18	1.8	313	100	15.48	34.80	0.30	25.72	228	0.49
101	15.44	34.80	0.29	2.3	227	150	13.66	34.83	0.09	26.14	188	0.60
121	14.38	34.82	0.13	2.5	203	200	13.02	34.87	0.10	26.31	173	0.69
150	13.66	34.83	0.09	2.6	188	250	12.55	34.84	0.08	26.38	166	0.78
200	13.02	34.87	0.10	2.7 a)	173	300	11.92	34.80	0.07	26.47	157	0.86
292	12.06	34.81	0.07	2.7	159	400	9.39	34.68	0.08	26.83	123	1.01
385	9.76	34.70	0.09	3.0	127	500	7.27	34.60	0.06	27.09	98	1.12
478	7.60	34.61	0.07	3.4	102	600	6.28	34.60	0.07	27.22	86	1.23
574	6.46	34.60	0.06	3.5 a)	88	700	5.82	34.59	0.08	27.27	81	1.32
768	5.59	34.58	0.10	3.6	79	800	5.48	34.58	0.11	27.31	78	1.41
965	4.68	34.56	0.20	3.7	70	1000	(4.57)	(34.56)	(0.22)	(27.40)	(69)	(1.57)
21	SPENCER F. BAIRD; December 1, 1958; 0021 GCT; 15°39.5'N, 96°53'W; sounding, 110 fm; wind, 260°, force 2; weather, partly cloudy; sea, moderate; wire angle, 00°.											
0	27.02	33.86	5.47	0.0	595	0	27.02	33.86	5.47	21.88	595	0.00
9	25.62	33.87	4.67	0.34	552	10	25.60	33.87	4.63	22.33	551	0.06
19	25.32	33.91	4.30	0.54	540	20	25.31	33.91	4.27	22.45	540	0.11
29	25.05	33.88	3.80	0.60	535	30	25.01	33.88	3.77	22.51	534	0.17
38	24.51	33.96	3.55	0.72	514	50	23.98	34.06	3.19	22.96	492	0.27
48	24.15	34.03	3.29	0.86	499	75	17.48	34.71	0.86	25.20	278	0.36
67	18.42	34.68	1.30	1.8	302	100	14.44	34.83	0.36	25.98	204	0.43
86	15.58	34.79	0.40	2.4	230	150	13.57	34.85	0.18	26.18	184	0.52
100	14.44	34.83	0.35	2.4	204							
124	13.98	34.83	0.27	2.5 b)	193							
147	13.62	34.85	0.20	2.5	186							
170	13.13	34.88	0.17	2.5	174							
23	SPENCER F. BAIRD; December 1, 1958; 1957 GCT; 15°36'N, 99°23.5'W; sounding, 1980 fm; wind, 320°, force missing; weather, partly cloudy; sea, slight; wire angle, 10°.											
0	30.00	33.34	4.36	0.00c)	726	0	30.00	33.34	4.36	20.51	726	0.00
28	29.35	33.49	4.42	0.06	694	10	29.89	33.37	4.37	20.57	720	0.07
38	28.58	33.66	4.39	0.14	657	20	29.66	33.43	4.40	20.68	710	0.14
48	27.63	34.00	4.20	0.21	604	30	29.20	33.52	4.42	20.91	688	0.21
58	25.67	34.20	3.76	0.49	530	50	27.40	34.03	4.14	21.88	594	0.34
67	20.54	34.54	1.15	1.8	364	75	18.45	34.64	0.39	24.91	306	0.46
76	18.26	34.65	0.35	2.4	300	100	15.60	34.73	0.09	25.65	235	0.52
99	15.67	34.72	0.09	2.6	238	150	13.19	34.82	0.08	26.24	179	0.63
118	14.46	34.80	0.08	2.6	206	200	12.27	34.85	0.12	26.44	160	0.71
144	13.37	34.81	0.08	2.8	184	250	11.73	34.81	0.09	26.52	153	0.79
193	12.34	34.85	0.12	2.8	161	300	11.02	34.76	0.07	26.60	145	0.87
284	11.32	34.78	0.08	2.9	148	400	9.38	34.63	0.08	26.79	126	1.02
376	9.72	34.65	0.06	3.1	130	500	8.08	34.58	0.08	26.95	112	1.14
468	8.43	34.60	0.08	3.3	115	600	7.11	34.55	0.09	27.08	100	1.26
560	7.44	34.55	0.08	3.4	105	700	6.32	34.56	0.09	27.18	90	1.36
751	5.94	34.56	0.09	3.5	84	800	5.63	34.56	0.09	27.27	81	1.46
946	4.86	34.56	0.13	3.7 c)	72	1000	(4.68)	(34.56)		(27.39)	(70)	(1.63)

a) Duplicate values: 30 m, 0.46; 200 m, 2.6; 574 m, 3.6 µg at/L.
b) Duplicate value, 2.4 µg at/L.
c) Duplicate values: 0 m, 0.06; 946 m, 3.6 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	PO_4-P	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m

SPENCER F. BAIRD; December 2, 1958; 1916 GCT; 16°58.5'N, 102°28'W; sounding, 2420 fm; wind, 280°, force 1; weather, partly cloudy; sea, slight; wire angle, 08°.

0	29.10	33.14	4.23	0.14	712	0	29.10	33.14	4.23	20.66	712	0.00
9	28.77	33.15	4.20	0.10	700	10	28.77	33.16	4.19	20.79	699	0.07
19	28.67	33.27	4.11	0.14	688	20	28.67	33.28	4.11	20.92	688	0.14
29	28.60	33.45	4.16	0.16	674	30	28.60	33.45	4.17	21.06	673	0.21
38	27.88	33.86	4.07	0.23	621	50	24.60	34.33	3.44	22.98	490	0.32
48	25.02	34.29	3.61	0.58	504	75	17.83	34.60	0.55	25.03	294	0.42
57	22.41	34.46	2.38	1.3	420	100	15.08	34.72	0.08	25.76	225	0.49
76	17.80	34.60	0.65	2.4 a)	294	150	12.94	(34.82)	0.09	(26.28)	(175)	(0.59)
100	15.08	34.72	0.08	2.6 a)	225	200	12.08	(34.80)	0.10	(26.44)	(160)	(0.68)
146	13.06	34.82	0.08	2.7	177	250	11.50	(34.77)	0.10	(26.52)	(152)	(0.76)
195	12.16	-	0.10	-		300	10.87	34.73	0.10	26.61	144	(0.83)
286	11.07	34.74	0.09	3.0 a)	146	400	9.40	34.64	0.09	26.80	126	(0.98)
382	9.66	34.65	0.10	3.2	130	500	8.13	34.63	0.09	26.98	108	(1.10)
474	8.45	34.61	0.09	3.3	112	600	7.00	34.57	0.08	27.10	97	(1.21)
666	6.34	34.54	0.08	3.5	90							

a) Duplicate values: 76 m, 2.3; 100 m, 2.7; 286 m, 2.9 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

8

HUGH M. SMITH; April 6, 1958; 0928, 0940 GCT; 3°57.5'N, 139°59.5'W; sounding, missing; wind, 220°, 7 kt; weather, moderate to heavy rain showers; sea, slight; wire angle, 10°, 10°.

0	27.90	34.55	4.42	0.50	22.11
38	27.62	34.61	4.46	0.37	22.25
76	27.60	35.02	4.31	0.29	22.56
101	20.75	34.87	2.91	0.50	24.48
139	13.77	-	1.50	1.26	
198	11.97	-	1.23	1.00	
303	10.44	-	1.46	0.83	
402	9.30	-	1.54	0.89	
507	8.40	-	1.17	0.92	
611	7.15	-	0.63	1.14	
710	6.18	-	1.02	1.32	
814	5.38	34.68	1.46	1.00	27.40
1015	4.37	34.57	1.53	1.14	27.43
1219	3.72	-	1.60	1.14a)	

9

HUGH M. SMITH; April 6, 1958; 1837 GCT; 3°00.5'N, 140°01'W; sounding, missing; wind, 090°, 3 kt; weather, cloudy; sea, smooth; wire angle, 02°.

0	28.07	34.70	4.50	0.30	22.17
41	27.65	35.29	4.47	0.36	22.75
82	26.32	35.11	3.87	0.58	23.04
102	16.72	35.06	1.77	0.61	25.64
127	13.87	35.03	1.39	0.83	26.26
208	12.38	35.09	1.01	1.20	26.60
264	11.59	34.92	0.97	1.37	26.62
315	10.90	-	1.20	1.06	
415	9.62	34.86	1.50	1.18	26.93
521	8.22	-	0.54	1.22	
626	6.92	-	0.84	0.97	
726	6.05	34.67	1.42	1.60	27.31
831	5.18	-	1.83	0.62	
1032	4.20	-	1.62	1.37	
1236	3.58	-	1.88	0.97	

10

HUGH M. SMITH; April 7, 1958; 0708 GCT; 2°00'N, 140°02'W; sounding, missing; wind, 090°, 7 kt; weather, partly cloudy; sea, slight; wire angle, 27°.

0	28.19	34.80	4.54	0.30	22.20
30	27.42	34.90	4.39	0.36	22.53
56	27.08	34.96	4.34	0.56	22.68
93	20.90	35.01	2.70	0.55	24.55
115	15.23	34.94	1.53	0.74	25.89
152	13.33	-	1.52	0.96	
234	12.21	34.92	1.44	1.82	26.51
278	11.60	34.94	1.09	1.14	26.64
368	9.89	34.78	0.83	1.00	26.82
456	8.89	-	0.69	0.98	
549	7.60	34.65	1.10	0.96	27.08
640	6.78	34.63	1.52	1.25	27.18
729	5.98	34.67	1.63	2.50	27.32
911	4.96	34.61	1.84	1.40	27.39
1098	4.08	34.61	1.85	1.00	27.49

0	28.19	34.80	22.20	564	0.00
10	27.93	34.83	22.31	553	0.06
20	27.68	34.86	22.41	543	0.11
30	27.42	34.90	22.53	532	0.16
50	27.29	34.94	22.60	526	0.27
75	24.59	35.00	23.49	441	0.39
100	18.99	34.98	25.03	294	0.48
125	14.20	34.94	26.12	190	0.55
150	13.30	34.93	26.30	173	0.59
200	12.42	35.12	26.62	143	0.67
250	12.00	34.92	26.55	150	0.75
300	11.18	34.90	26.68	137	0.83
400	9.50	34.77	26.88	118	0.96
500	8.27	34.70	27.02	105	1.08
600	7.11	34.62	27.13	95	1.19
700	6.23	34.65	27.27	81	1.29
800	5.52	34.65	27.36	73	1.37
1000	4.54	34.61	27.44	65	1.53

a) Alternate value, 1.00 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

11 HUGH M. SMITH; April 7, 1958; 1834 GCT; 1°00'N, 139°57.5'W; sounding, missing; wind, 110°, 12 kt; weather, partly cloudy; sea, slight; wire angle, 32°.

0	27.26	34.97	4.35	0.47	22.63
30	26.83	35.08	4.26	0.25	22.85
65	25.18	35.01	3.72	0.61	23.32
109	20.16	35.21	2.93	0.77	24.90
149	14.64	34.84	2.51	0.69	25.95
211	12.36	-	1.78	0.98	
265	11.76	34.99	1.14	1.17	26.65
336	10.97	34.91	0.73	2.26	26.73
435	8.87	-	0.66	0.93	
549	7.55	-	1.07	1.05	
658	6.82	-	1.38	0.98	
768	5.70	-	1.76	0.46	
878	5.19	-	1.80	0.90	
1098	3.94	34.67	1.90	0.97	27.55

12 HUGH M. SMITH; April 8, 1958; 0610 GCT; 0°02'S, 140°08'W; sounding, missing; wind, 130°, 12 kt; weather, partly cloudy; sea, slight; wire angle, 12°.

0	27.18	35.38	4.53	0.16	22.97
65	23.80	35.34	3.35	0.16	23.98
121	18.15	35.61	3.00	0.27	25.72
171	13.62	35.07	2.98	0.73	26.34
195	12.58	34.98	2.68	0.43	26.48
242	12.19	35.04	2.13	0.73	26.60
299	11.35	34.89	0.91	2.02	26.64
359	9.96	34.82	0.89	1.56	26.84
481	8.17	-	0.85	1.02	
600	7.04	34.65	1.39	1.02	27.16
717	6.02	-	1.70	0.97	
844	5.35	-	1.76	1.37	
958	4.52	-	1.98	1.03	
1197	3.74	34.61	2.03	1.14	27.52
1437	3.16	-	2.19	1.24	

13 HUGH M. SMITH; April 9, 1958; 0226 GCT; 1°00'S, 140°00'W; sounding, 2260 m; wind, 170°, 11 kt; weather, cloudy; sea, slight; wire angle, 13°.

0	27.63	35.26	4.82	0.53	22.73	0	27.63	35.26	22.73	513	0.00
39	27.25	35.27	4.35	0.35	22.86	10	27.53	35.26	22.76	510	0.05
101	20.74	35.51	3.06	0.78	24.97	20	27.44	35.26	22.79	507	0.10
136	16.72	35.24	3.02	0.98	25.78	30	27.34	35.26	22.83	504	0.15
166	14.79	35.16	2.88	0.85	26.16	50	27.02	35.33	22.98	489	0.25
219	12.32	34.94	2.14	1.18	26.50	75	25.40	35.44	23.57	433	0.37
279	11.90	34.88	1.73	1.20	26.53	100	20.88	35.50	24.93	304	0.46
335	11.42	34.84	1.04	2.52	26.59	125	17.89	35.33	25.57	242	0.53
447	8.89	34.71	0.72	0.89	26.93	150	15.71	35.19	25.98	204	0.59
559	7.57	34.58	1.07	0.90	27.03	200	13.02	35.01	26.41	162	0.68
671	6.64	34.58	1.49	0.93	27.16	250	11.95	34.89	26.53	151	0.76
894	5.10	34.52	1.98	0.93	27.30	300	11.76	34.86	26.54	150	0.84
1107	3.96	34.55	1.96	1.06	27.45	400	10.01	34.76	26.78	127	0.99
1320	3.40	34.56	2.08	1.32a)	27.52	500	8.17	34.64	26.99	108	1.11
						600	7.20	34.57	27.07	100	1.23
						700	6.42	34.57	27.18	90	1.33
						800	5.70	34.54	27.25	83	1.43
						1000	4.48	34.53	27.38	70	1.60
						1200	3.72	34.55	27.48	61	1.75

a) Alternate value, 1.03 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED			
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD	14
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m	
HUGH M. SMITH; April 9, 1958; 1545 GCT; 2°02'S, 139°59.5'W; sounding, 2300 m; wind, 110°, 13 kt; weather, partly cloudy; sea, slight; wire angle, 41°.												
0	27.62	35.05	4.50	0.61	22.58	0	27.62	35.05	22.58	528	0.00	
32	27.52	35.09	4.43	0.24	22.64	10	27.59	35.06	22.59	526	0.05	
68	26.50	35.39	4.42	0.53	23.19	20	27.56	35.07	22.61	525	0.11	
96	22.58	35.42	3.62	0.40	24.39	30	27.53	35.08	22.63	523	0.16	
118	16.96	35.26	2.13	0.61	25.74	50	27.35	35.24	22.81	506	0.26	
156	13.23	34.94	0.84	0.90	26.32	75	25.82	35.41	23.42	447	0.38	
201	12.68	34.92	0.69	1.65	26.41	100	21.55	35.46	24.71	324	0.48	
238	12.38	34.98	0.69	0.97	26.52	125	15.88	35.19	25.94	207	0.55	
317	11.45	34.85	0.53	0.90	26.60	150	13.47	34.98	26.30	173	0.59	
397	9.83	34.82	0.53	0.87	26.86	200	12.67	34.91	26.41	163	0.68	
477	8.45	34.70	1.14a)	0.90	26.99	250	12.27	34.96	26.52	152	0.76	
550	7.59	34.65	0.99	0.94	27.08	300	11.69	34.88	26.57	147	0.84	
636	6.82	34.58	1.62	0.77	27.13	400	9.77	34.81	26.86	120	0.98	
793	5.60	34.56	1.71	0.96	27.28	500	8.15	34.68	27.02	105	1.10	
954	4.60	34.53	2.13	1.05b)	27.37	600	7.12	34.60	27.11	96	1.21	
						700	6.29	34.56	27.19	89	1.31	
						800	5.56	34.55	27.27	81	1.41	
HUGH M. SMITH; April 10, 1958; 0125 GCT; 3°00'S, 140°00'W; sounding, 2425 m; wind, 110°, 12 kt; weather, partly cloudy; sea, slight; wire angle, 41°.												15
0	28.00	35.09	4.50	0.73	22.48	0	28.00	35.09	22.48	537	0.00	
31	27.58	35.05	4.43	0.44	22.59	10	27.86	35.07	22.51	534	0.05	
75	26.24	35.21	4.35	0.50	23.14	20	27.73	35.06	22.55	531	0.11	
100	21.25	35.46	3.34	0.65	24.79	30	27.59	35.05	22.59	527	0.16	
134	13.94	35.00	1.09	0.92	26.22	50	27.50	35.08	22.64	522	0.27	
157	13.47	34.98	1.01	0.93	26.30	75	26.24	35.21	23.14	474	0.39	
198	12.76	34.95	1.13	0.96	26.42	100	21.25	35.46	24.79	316	0.49	
236	12.57	34.95	0.69	1.14	26.46	125	14.45	35.14	26.22	181	0.55	
316	11.76	34.91	0.45	0.99	26.58	150	13.42	34.97	26.30	173	0.60	
397	10.16	34.87	0.23	1.43	26.84	200	12.75	34.95	26.42	161	0.68	
475	8.62	34.72	0.54	1.14	26.98	250	12.48	34.94	26.47	157	0.77	
554	7.34	34.65	0.88	1.17	27.12	300	11.97	34.92	26.55	149	0.85	
633	6.56	34.58	1.29	1.55	27.17	400	10.10	34.86	26.84	121	0.99	
724	5.34	34.59	1.62	1.17	27.33	500	8.17	34.69	27.03	104	1.11	
881	4.94	34.58	1.67	1.30c)	27.37	600	6.87	34.60	27.14	93	1.22	
						700	5.64	34.58	27.29	79	1.31	
						800	5.15	34.58	27.35	74	1.40	
HUGH M. SMITH; April 10, 1958; 1515 GCT; 4°05'S, 140°09'W; sounding, missing; wind, 100°, 12 kt; weather, partly cloudy; sea, slight; wire angle, 05°.												16
0	27.91	34.72	4.50	0.31	22.24	0	27.91	34.72	22.23	561	0.00	
58	27.66	35.16	4.27	0.14	22.65	10	27.87	34.79	22.30	554	0.06	
142	14.78	35.07	1.26	2.05	26.09	20	27.82	34.87	22.38	547	0.11	
163	13.65	35.03	1.30	2.18	26.30	30	27.78	34.94	22.44	541	0.17	
197	12.84	34.94	0.85	2.07	26.40	50	27.69	35.09	22.58	527	0.27	
233	12.56	34.94	1.00	2.29	26.45	75	25.11	35.30	23.56	434	0.39	
290	12.16	34.94	0.18	2.07	26.53	100	21.31	35.40	24.73	322	0.49	
342	11.34	34.97	0.17	2.73	26.71	125	17.44	35.23	25.60	239	0.56	
461	9.01	34.77	0.46	3.20	26.96	150	14.27	35.05	26.19	184	0.61	
579	7.45	34.70	0.92	2.54	27.14	200	12.80	34.93	26.40	164	0.70	
691	6.59	34.65	1.14	3.37	27.22	250	12.47	34.93	26.46	158	0.79	
804	5.76	34.58	1.68	3.07	27.27	300	12.02	34.94	26.56	149	0.87	
915	5.04	34.58	2.03	3.34	27.36	400	10.20	34.88	26.84	122	1.01	
1132	4.06	34.57	2.26	1.02	27.46	500	8.42	34.73	27.02	105	1.13	
1349	3.70	34.57	2.25	2.29d)	27.50	600	7.26	34.69	27.16	92	1.24	
						700	6.52	34.64	27.22	86	1.34	
						800	5.79	34.58	27.27	81	1.43	
						1000	4.59	34.57	27.40	69	1.60	
						1200	3.95	34.57	27.47	62	1.75	

a) Value uncertain; used in interpolation.
b) Alternate value, 1.21 µg at/L.
c) Alternate value, 1.26 µg at/L.
d) Alternate value, 1.88 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
19	HUGH M. SMITH; April 12, 1958; 1737 GCT; 0°01'S, 140°00.5'W; sounding, missing; wind, 100°, 8 kt; weather, partly cloudy; sea, slight; wire angle, 38-41°.										
0	26.83	35.14	4.31	0.16	22.90	0	26.83	35.14	22.90	497	0.00
28	26.70	35.19	4.30	0.02	22.98	10	26.78	35.15	22.93	495	0.05
77	25.34	35.27	3.84	0.53	23.46	20	26.74	35.17	22.96	492	0.10
140	19.36	35.29	3.08	0.12	25.17	30	26.69	35.19	22.98	490	0.15
173	14.44	35.00	3.07	0.13	26.11	50	26.36	35.23	23.12	478	0.24
199	13.21	34.97	2.91	0.50	26.35	75	25.44	35.26	23.43	449	0.36
251	12.28	35.05	2.19	1.50	26.59	100	23.69	35.32	24.00	396	0.47
300	11.54	34.88	0.99	0.94	26.60	125	21.20	35.32	24.70	329	0.56
425	9.30	34.72	0.54	1.32	26.87	150	17.74	35.19	25.51	253	0.63
517	7.86	34.67	0.90	0.73	27.06	200	13.18	34.97	26.35	174	0.74
626	7.04	34.61	1.30	0.80	27.13	250	12.29	35.04	26.59	152	0.82
887	4.86	34.55	1.92	0.98	27.36	300	11.54	34.88	26.60	152	0.89
1112	3.92	34.61	1.98	2.02	27.51	400	9.76	34.73	26.80	134	1.04
1338	3.44	34.61	2.13	2.42	27.55	500	8.09	34.67	27.03	113	1.16
						600	7.19	34.62	27.12	105	1.27
						700	6.38	34.58	27.19	98	1.37
						800	5.54	34.55	27.28	90	1.47
						1000	4.30	34.57	27.44	75	1.63
						1200	3.73	34.61	27.53	67	1.77
22	HUGH M. SMITH; April 13, 1958; 1725 GCT; 0°02'S, 139°57'W; sounding, 2650 m; wind, 150°, 6 kt; weather, partly cloudy; sea, slight; wire angle, 23°.										
0	26.86	35.19	4.39	0.10	22.93	0	26.86	35.19	22.93	494	0.00
32	26.52	35.24	4.28	0.25	23.07	10	26.75	35.20	22.97	490	0.05
88	22.97	35.35	3.25	0.67	24.23	20	26.65	35.22	23.02	486	0.10
168	15.27	35.03	3.08	0.27	25.95	30	26.54	35.23	23.06	483	0.15
215	12.96	34.97	2.88	0.78	26.40	50	25.67	35.28	23.38	454	0.24
224	12.56	34.92	2.56	1.28	26.44	75	24.03	35.33	23.91	404	0.35
282	11.85	34.86	1.61	1.21	26.53	100	21.76	35.31	24.54	344	0.44
339	11.24	34.85	0.82	1.27	26.63	125	19.31	35.22	25.13	289	0.52
456	9.03	34.73	0.67	0.62	26.92	150	16.93	35.11	25.64	241	0.59
578	7.13	34.62	1.18	1.09	27.12	200	13.59	35.00	26.29	179	0.69
694	6.23	34.62	1.53	1.80	27.24	250	12.04	34.86	26.49	162	0.78
811	5.49	34.58	1.76	2.27	27.31	300	11.67	34.85	26.56	156	0.86
927	4.76	34.56	1.95	2.09	27.38	400	10.14	34.79	26.79	136	1.00
1385	3.43	34.66	2.07	2.12a)	27.60	500	8.26	34.68	27.01	115	1.13
						600	6.92	34.61	27.15	102	1.24
						700	6.19	34.61	27.25	93	1.33
						800	5.56	34.58	27.30	88	1.42
						1000	4.55	34.57	27.41	78	1.59
						1200	3.97	34.62	27.51	69	1.74

a) Alternate value, 2.32 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

HUGH M. SMITH; April 14, 1958; 1727 GCT; 0°01'S, 139°59'W; sounding, 2300 m; wind, 110°, 7 kt; weather, partly cloudy; sea, slight; wire angle, 27°. 25

0	26.90	35.18	4.39	0.30	22.91	0	26.90	35.18	22.91	496	0.00
33	26.57	35.23	4.21	0.43	23.05	10	26.80	35.19	22.95	493	0.05
102	19.99	35.30	2.91	0.61	25.01	20	26.70	35.21	22.99	488	0.10
126	17.94	35.20	3.03	0.36	25.46	30	26.60	35.22	23.03	484	0.15
197	14.10	35.08	2.91	0.55	26.25	50	25.27	35.34	23.54	436	0.24
224	12.92	34.98	2.70	0.63	26.41	75	22.98	35.40	24.26	367	0.34
281	11.85	34.86	1.52	0.70	26.53	100	20.23	35.30	24.95	302	0.43
338	11.22	34.88	0.70	0.85	26.66	125	18.02	35.20	25.44	255	0.50
457	9.02	34.70	0.56	1.29	26.90	150	16.40	35.15	25.79	222	0.56
582	7.14	34.60	1.14	0.87	27.11	200	13.95	35.06	26.26	177	0.66
703	6.36	34.56	1.49	1.09	27.18	250	12.29	34.90	26.47	157	0.74
823	5.62	34.58	1.75	1.59	27.29	300	11.63	34.86	26.57	148	0.82
943	4.79	34.56	1.89	1.19	27.37	400	10.12	34.80	26.79	126	0.97
1180	3.86	34.58	1.83	1.90	27.49	500	8.29	34.65	26.98	109	1.10
1412	3.32	34.59	1.99	2.09a)	27.55	600	6.99	34.59	27.12	95	1.21
						700	6.37	34.56	27.18	90	1.31
						800	5.76	34.57	27.26	82	1.41
						1000	4.51	34.56	27.40	68	1.58
						1200	3.81	34.58	27.49	60	1.72

HUGH M. SMITH; April 15, 1958; 2109 GCT; 0°02'S, 139°58'W; sounding, 2350 m; wind, 120°, 12 kt; weather, partly cloudy; sea, slight; wire angle, 28°. 27

0	27.03	35.22	4.33	0.97	22.90	0	27.03	35.22	22.90	497	0.00
32	26.67	35.24	4.32	0.17	23.02	10	26.92	35.22	22.94	494	0.05
86	23.78	35.47	3.43	0.88	24.08	20	26.80	35.23	22.98	490	0.10
141	17.50	35.16	3.09	1.07	25.54	30	26.69	35.23	23.02	487	0.15
192	13.70	35.04	2.76	0.49	26.30	50	26.05	35.33	23.29	462	0.24
221	12.88	35.01	2.78	1.17	26.44	75	24.62	35.43	23.81	413	0.35
278	11.82	34.89	1.39	2.10	26.56	100	22.23	35.40	24.48	350	0.45
337	11.19	34.87	0.75	2.45	26.66	125	19.38	35.26	25.15	287	0.53
459	8.81	34.71	0.60	2.41	26.94	150	16.65	35.13	25.71	233	0.59
584	7.08	34.61	1.16	0.96	27.12	200	13.42	35.03	26.35	174	0.69
705	6.03	34.60	1.61	1.59	27.25	250	12.27	34.94	26.52	159	0.78
794	5.41	34.56	1.77	2.11	27.30	300	11.58	34.87	26.59	152	0.85
945	4.58	34.61	1.87	0.87	27.44	400	10.01	34.79	26.81	133	1.00
1180	3.84	34.60	1.87	1.19	27.51	500	8.17	34.66	27.01	115	1.12
1412	3.26	34.62	2.12	2.69	27.58	600	6.92	34.60	27.14	102	1.23
						700	6.06	34.60	27.25	93	1.33
						800	5.37	34.56	27.31	87	1.42
						1000	4.37	34.61	27.46	73	1.58
						1200	3.79	34.60	27.51	68	1.72

a) Alternate value, 2.30 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
30	HUGH M. SMITH; April 16, 1958; 1817 GCT; 0°02'S, 139°58'W; sounding, 2300 m; wind, 110°, 13 kt; weather, partly cloudy; sea, slight; wire angle, 32°.										
0	26.83	35.22	4.29	0.53	22.96	0	26.83	35.22	22.96	491	0.00
24	26.64	35.28	4.20	0.42	23.06	10	26.75	35.24	23.00	487	0.05
88	21.64	35.36	2.96	0.84	24.61	20	26.67	35.27	23.05	483	0.10
135	17.74	35.23	3.06	1.06	25.53	30	26.32	35.32	23.20	469	0.15
187	13.72	35.05	2.74	1.30	26.30	50	25.02	35.43	23.68	422	0.23
225	12.81	34.99	2.73	1.06	26.44	75	22.93	35.43	24.30	363	0.33
284	11.65	34.87	1.07	0.75	26.57	100	20.64	35.33	24.86	310	0.42
345	10.80	34.89	0.85a)	1.68	26.75	125	18.57	35.26	25.35	264	0.49
468	8.97	34.70	0.54	0.85	26.91	150	16.40	35.17	25.80	220	0.55
597	7.13	34.63	0.99b)	1.37	27.13	200	13.31	35.02	26.36	167	0.65
719	6.15	34.60	1.52	1.78	27.24	250	12.28	34.93	26.50	154	0.74
843	5.48	34.55	1.77	1.88	27.28	300	11.41	34.87	26.62	143	0.81
961	4.81	34.57	1.90	2.57	27.38	400	9.99	34.81	26.82	123	0.95
1197	4.00	34.61	1.90	2.95	27.50	500	8.47	34.67	26.96	110	1.08
1430	3.25	34.64	1.99	2.37c)	27.60	600	7.10	34.62	27.13	95	1.19
						700	6.27	34.60	27.22	86	1.29
						800	5.70	34.56	27.26	82	1.38
						1000	4.65	34.57	27.40	69	1.56
						1200	3.99	34.61	27.50	59	1.71
33	HUGH M. SMITH; April 17, 1958; 1823 GCT; 0°03'S, 139°58'W; sounding, 2300 m; wind, 120°, 12 kt; weather, cloudy; sea, slight; wire angle, 22°.										
0	26.83	35.23	4.31	0.67	22.97	0	26.83	35.23	22.97	491	0.00
28	26.64	35.28	4.26	0.26	23.06	10	26.76	35.24	23.00	488	0.05
76	24.14	35.43	3.37	0.76	23.95	20	26.69	35.26	23.03	484	0.10
158	14.23	35.01	2.98	1.17	26.16	30	26.59	35.28	23.08	480	0.15
209	12.72	34.96	2.99	0.96	26.44	50	25.82	35.36	23.38	451	0.24
235	12.35	34.92	2.13	1.49	26.48	75	24.22	35.42	23.91	400	0.35
295	11.12	34.90	0.62	1.76	26.69	100	21.13	35.40	24.78	317	0.44
357	10.58	34.88	0.59	2.36	26.78	125	18.09	35.20	25.42	257	0.51
480	8.84	34.71	0.55	1.48	26.94	150	15.15	35.06	26.00	201	0.57
608	7.07	34.67	0.45d)	1.43	27.17	200	12.82	34.96	26.42	162	0.66
729	5.94	34.63	1.53	0.97	27.29	250	12.03	34.91	26.53	151	0.74
850	5.33	34.63	1.73	2.08	27.36	300	11.07	34.89	26.70	135	0.82
968	4.59	34.65	1.90	1.26	27.47	400	10.02	34.82	26.83	123	0.95
1204	3.84	34.66	1.91	2.40	27.55	500	8.54	34.69	26.97	110	1.08
1434	3.13	34.72	2.04	2.69e)	27.67	600	7.17	34.67	27.16	92	1.19
						700	6.16	34.63	27.26	82	1.29
						800	5.56	34.62	27.33	76	1.38
						1000	4.46	34.65	27.48	61	1.53
						1200	3.85	34.66	27.55	54	1.67

a) Value uncertain; used in interpolation.
b) This oxygen sample appeared to be contaminated.
c) Alternate value, 2.49 µg at/L.
d) Value uncertain; not used in interpolation.
e) Alternate value, 2.30 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

34

HUGH M. SMITH; April 18, 1958; 1722 GCT; 0°53'N, 140°02'W; sounding, 2375 m; wind, 120°, 10 kt; weather, cloudy; sea, slight; wire angle, 23°.

0	27.23	35.09	4.50	0.50	22.73	0	27.23	35.09	22.73	513	0.00
52	24.82	35.00	3.49	0.35	23.42	10	26.77	35.07	22.87	500	0.05
57	24.17	35.05	3.36	0.31	23.65	20	26.30	35.05	23.00	488	0.10
81	22.39	35.04	2.99	0.70	24.16	30	25.84	35.03	23.13	476	0.15
114	17.53	34.88	2.92	0.85	25.31	50	24.91	35.00	23.39	452	0.24
155	13.16	34.80	2.59	1.02	26.22	75	22.80	35.06	24.06	389	0.35
200	12.23	34.86	2.14	0.78	26.45	100	19.69	34.95	24.83	317	0.43
256	11.55	34.95	0.84	0.58	26.65	125	16.10	34.84	25.62	241	0.50
303	10.97	34.81	0.59	0.64	26.65	150	13.55	34.80	26.15	192	0.56
360	9.68	34.83	0.92	0.71	26.89	200	12.23	34.86	26.45	164	0.65
451	8.41	34.72	0.57	2.04	27.01	250	11.61	34.94	26.64	147	0.72
539	7.13	34.68	1.14	1.39	27.17	300	11.01	34.82	26.65	147	0.80
627	6.38	34.61	1.37	1.68	27.22	400	9.07	34.78	26.96	118	0.93
716	5.80	34.56	1.67	2.22	27.25	500	7.67	34.69	27.10	105	1.04
896	4.72	34.60	1.77a)	2.53	27.41	600	6.57	34.63	27.21	96	1.14
1074	4.10	34.57	1.83	2.53b)	27.46	700	5.90	34.56	27.24	93	1.24
						800	5.26	34.57	27.33	85	1.33
						1000	4.36	34.58	27.44	75	1.49

35

HUGH M. SMITH; April 19, 1958; 0540 GCT; 2°00'N, 140°03'W; sounding, 2350 m; wind, 100°, 10 kt; weather, partly cloudy; sea, slight; wire angle, 22°.

0	28.35	34.80	4.50	0.29	22.15	0	28.35	34.80	22.15	569	0.00
19	28.15	34.81	4.46	0.26	22.22	10	28.24	34.80	22.19	565	0.06
50	27.70	34.91	4.42	0.37	22.45	20	28.17	34.81	22.22	562	0.11
91	20.16	34.88	2.53	0.87	24.65	30	28.00	34.84	22.30	555	0.17
118	15.05	34.90	1.46	1.31	25.90	50	27.70	34.91	22.45	540	0.28
136	14.13	34.93	1.33	1.62	26.12	75	23.59	34.89	23.70	421	0.40
171	13.21	34.95	1.11	1.22	26.33	100	18.21	34.88	25.15	283	0.49
197	12.84	34.90	1.16	0.72	26.37	125	14.56	34.91	26.02	200	0.55
251	11.96	34.86	0.93	1.40	26.51	150	13.66	34.94	26.23	180	0.60
300	11.11	34.82	1.26	1.80	26.63	200	12.79	34.89	26.37	167	0.69
398	9.11	34.69	0.93	0.85	26.88	250	11.98	34.86	26.50	154	0.77
495	8.05	34.65	0.90	1.27	27.01	300	11.11	34.82	26.63	141	0.85
596	7.08	34.58	1.39	1.40	27.10	400	9.08	34.68	26.87	119	0.98
696	5.98	34.56	1.68	1.63	27.23	500	8.00	34.64	27.01	106	1.10
796	5.40	34.54	1.83	2.02	27.29	600	7.03	34.57	27.10	97	1.22
999	4.32	34.58	1.82	1.92	27.44	700	5.95	34.55	27.22	85	1.32
1210	3.74	34.61	1.81	2.40c)	27.52	800	5.38	34.54	27.29	79	1.41
						1000	4.32	34.58	27.44	65	1.57
						1200	3.77	34.60	27.51	58	1.72

a) Air in sample.
b) Alternate value, 2.42 µg at/L.
c) Alternate value, 2.14 µg at/L.

HBL

HMS-45

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
36	HUGH M. SMITH; April 19, 1958; 1326 GCT; 3°00'N, 140°01'W; sounding, 2350 m; wind, 030°, 9 kt; weather, precipitation near ship; sea, slight; wire angle, 11°.										
0	28.31	34.54	4.51	0.35	21.97	0	28.31	34.54	21.97	586	0.00
24	28.04	34.59	4.51	0.30	22.09	10	28.20	34.56	22.02	581	0.06
44	27.80	34.72	4.53	0.11	22.27	20	28.08	34.58	22.07	576	0.12
84	21.74	34.89	2.91	0.55	24.23	30	28.07	34.62	22.11	573	0.17
99	15.68	34.91	1.52	1.01	25.77	50	27.60	34.88	22.46	539	0.29
119	14.07	34.95	1.45	0.64	26.15	75	24.07	34.95	23.60	430	0.41
163	13.18	34.94	1.44	1.13	26.33	100	15.50	34.91	25.81	220	0.49
218	12.34	34.92	1.01	0.93	26.48	125	13.84	34.95	26.20	183	0.54
277	11.62	34.83	0.84	0.70	26.55	150	13.24	34.95	26.32	171	0.59
333	10.92	34.80	1.23	1.92	26.65	200	12.59	34.93	26.44	160	0.67
441	9.19	34.71	1.53	0.80	26.88	250	11.94	34.87	26.52	152	0.75
549	7.74	34.63	0.37	2.01	27.04	300	11.34	34.81	26.58	146	0.83
663	6.38	-	1.15	1.18		400	9.86	34.74	26.79	126	0.97
772	5.58	34.60	1.71	1.70	27.31	500	8.37	34.65	26.96	110	1.10
879	5.00	34.57	1.61	2.54	27.36	600	7.09	34.63	27.14	94	1.21
1093	4.10	34.63	1.64	2.43	27.50	700	6.07	34.61	27.26	82	1.31
1311	3.41	34.60	2.00	2.03a)	27.55	800	5.41	34.58	27.32	77	1.40
						1000	4.46	34.60	27.44	65	1.56
						1200	3.76	34.61	27.52	57	1.70
37	HUGH M. SMITH; April 19, 1958; 1758 GCT; 3°26'N, 140°02'W; sounding, 2310 m; wind, 030°, 8 kt; weather, precipitation near ship; sea, slight; wire angle, 12°.										
0	28.24	34.29	4.50	0.18	21.80	0	28.24	34.29	21.80	602	0.00
40	27.75	35.01	4.39	0.28	22.51	10	28.12	34.47	21.98	585	0.06
73	27.04	35.07	4.06	0.44	22.78	20	27.99	34.65	22.16	568	0.12
98	19.54	34.87	2.71	0.37	24.80	30	27.87	34.83	22.33	551	0.17
113	15.61	34.88	1.30	1.40	25.76	50	27.60	35.07	22.60	526	0.28
128	13.92	34.94	1.31	0.56	26.18	75	26.53	35.05	22.93	494	0.41
163	12.97	34.98	1.69	1.30	26.40	100	18.94	34.86	24.95	302	0.51
202	12.29	34.94	1.22	1.20	26.51	125	14.14	34.92	26.11	191	0.57
255	11.70	34.90	0.83	0.66	26.59	150	13.06	34.97	26.38	166	0.62
303	11.10	34.84	0.98	0.87	26.65	200	12.32	34.94	26.50	154	0.70
402	9.89	34.77	1.25	0.87	26.81	250	11.75	34.90	26.58	147	0.78
504	8.79	34.68	1.05	1.33	26.92	300	11.14	34.84	26.64	140	0.85
608	7.27	34.66	0.60	1.43	27.13	400	9.91	34.77	26.81	125	0.99
706	6.27	34.59	1.12	1.53	27.22	500	8.84	34.68	26.91	115	1.12
807	5.48	34.58	1.28b)	2.52	27.31	600	7.39	34.66	27.12	96	1.24
1005	4.42	34.56	1.52	2.59	27.41	700	6.32	34.59	27.21	87	1.34
1208	3.67	34.58	1.71	2.51c)	27.51	800	5.53	34.58	27.30	78	1.43
						1000	4.44	34.56	27.41	68	1.60
						1200	3.70	34.57	27.50	60	1.74

a) Alternate value, 2.22 µg at/L.
b) Value uncertain; not used in interpolation.
c) Alternate value, 2.36 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

38

HUGH M. SMITH; April 20, 1958; 0126 GCT; 2°30'N, 139°55'W; sounding, 2350 m; wind, 180°, 6 kt; weather, distant precipitation; sea, slight; wire angle, 11°.

0	28.58	34.70	4.50	0.25	22.00	0	28.58	34.70	22.00	583	0.00
34	28.00	34.70	4.55	0.28	22.19	10	28.41	34.70	22.06	578	0.06
78	25.68	35.01	3.66	0.67	23.16	20	28.24	34.70	22.11	572	0.12
98	19.88	34.88	2.58	0.63	24.72	30	28.07	34.70	22.17	567	0.17
122	14.34	34.97	1.37	1.66	26.11	50	28.09	34.84	22.27	558	0.29
137	13.56	34.96	1.35	0.67	26.27	75	26.09	34.99	23.02	486	0.42
177	13.13	34.94	1.39	0.95	26.34	100	19.29	34.88	24.87	309	0.52
206	12.67	34.89	1.07	1.10	26.39	125	14.09	34.97	26.16	186	0.58
255	11.83	34.84	0.81	1.06	26.52	150	13.30	34.95	26.31	172	0.63
310	11.22	34.81	1.14	1.06	26.61	200	12.77	34.90	26.38	166	0.71
414	9.67	34.71	0.54	1.09	26.80	250	11.91	34.84	26.50	154	0.79
519	8.09	-	0.46	1.38		300	11.32	34.81	26.59	146	0.87
623	7.26	34.64	0.69	1.25	27.12	400	9.89	34.71	26.76	129	1.02
726	5.99	34.56	1.36	1.25	27.23	500	8.35	34.66	26.97	109	1.15
830	5.42	-	1.63	2.60		600	7.43	34.65	27.10	97	1.26
1035	4.35	34.60	1.75	2.53	27.45	700	6.30	34.56	27.19	89	1.36
1236	3.62	34.61	1.83	2.40a)	27.54	800	5.55	34.56	27.28	80	1.46
						1000	4.52	34.60	27.43	66	1.62
						1200	3.75	34.60	27.52	58	1.77

41

HUGH M. SMITH; April 20, 1958; 2235 GCT; 1°30'N, 140°03'W; sounding, 2375 m; wind, 150°, 13 kt; weather, cloudy; sea, slight; wire angle, 12°.

0	28.20	34.95	4.52	0.31	22.31	0	28.20	34.95	22.31	553	0.00
24	27.81	34.94	4.50	0.20	22.43	10	28.04	34.94	22.36	549	0.06
58	26.34	34.94	4.16	0.44	22.90	20	27.87	34.94	22.41	544	0.11
84	23.87	34.93	3.39	0.64	23.65	30	27.66	34.94	22.48	538	0.16
98	20.17	34.85	2.51	0.79	24.62	50	26.82	34.94	22.75	513	0.27
133	14.84	34.83	2.45	1.02	25.89	75	25.11	34.94	23.29	463	0.39
182	13.08	34.93	1.31	0.78	26.34	100	19.74	34.84	24.73	326	0.49
217	12.50	34.89	1.12	0.87	26.43	125	15.66	34.82	25.70	233	0.56
275	11.52	34.85	0.99	1.00	26.58	150	13.79	34.86	26.15	192	0.61
329	10.63	34.77	1.07	1.68	26.68	200	12.75	34.91	26.40	169	0.70
438	8.68	34.67	0.54	1.29	26.93	250	11.94	34.86	26.52	159	0.79
545	7.62	34.64	0.99	1.83	27.07	300	11.11	34.81	26.63	149	0.86
658	6.53	34.56	1.54	0.73	27.16	400	9.32	34.69	26.85	129	1.00
765	5.81	34.57	1.76	1.38	27.26	500	8.01	34.65	27.02	114	1.12
872	5.14	34.57	1.81	2.31	27.34	600	7.07	34.59	27.11	105	1.23
1086	4.06	34.58	1.80	2.40	27.47	700	6.23	34.56	27.20	98	1.33
1302	3.50	34.61	1.90	2.14	27.55	800	5.58	34.57	27.29	90	1.43
						1000	4.44	34.57	27.42	77	1.59
						1200	3.76	34.59	27.51	68	1.74

a) Alternate value, 1.97 µg at/L.

HBL

HMS-45

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
3	HUGH M. SMITH; April 21, 1958; 1452 GCT; 0°38'N, 139°52'W; sounding, 2400 m; wind, 120°, 12 kt; weather, cloudy; sea, slight; wire angle, 26°.										
0	27.18	35.14	4.46	0.21	22.79	0	27.18	35.14	22.79	508	0.00
18	27.12	35.13	4.42	0.13	22.80	10	27.15	35.13	22.79	508	0.05
68	24.98	35.06	3.59	0.44	23.41	20	27.17	35.12	22.77	509	0.10
90	20.64	35.13	3.03	0.30	24.71	30	26.97	35.10	22.82	504	0.15
122	17.56	35.10	3.09	0.64	25.47	50	26.54	35.07	22.94	493	0.25
230	13.95	34.81	2.58	0.90	26.07	75	23.61	35.08	23.84	407	0.37
284	12.27	34.89	2.02	0.63	26.47	100	19.42	35.13	25.03	294	0.45
312	12.04	34.83	1.06	1.28	26.47	125	17.39	35.09	25.51	248	0.52
352	12.53	34.88	-	-	26.41	150	16.50	35.01	25.66	234	0.58
421	9.29	34.73	0.68	1.01	26.88	200	15.20	34.87	25.85	216	0.70
532	7.55	34.61	1.07	1.38	27.05	250	13.23	34.84	26.24	179	0.80
647	6.64	34.60	1.36	1.91	27.17	300	12.08	34.85	26.48	156	0.89
757	5.60	34.56	1.79	2.03	27.28	400	10.46	34.78	26.72	133	1.04
868	4.95	34.59	1.85	2.35	27.38	500	7.79	34.63	27.04	103	1.17
1086	4.15	34.58	1.90	2.13	27.46	600	6.97	34.59	27.12	95	1.28
1307	3.42	34.62	2.06	2.01	27.56	700	6.12	34.57	27.22	86	1.38
						800	5.31	34.56	27.31	77	1.47
						1000	4.42	34.58	27.43	66	1.63
						1200	3.77	34.60	27.51	58	1.78
44	HUGH M. SMITH; April 21, 1958; 0028 GCT; 0°29'S, 140°00'W; sounding, 2350 m; wind, 130°, 12 kt; weather, partly cloudy; sea, slight; wire angle, 11°.										
0	27.52	35.25	4.47	0.50	22.76	0	27.52	35.25	22.76	510	0.00
28	26.91	35.27	4.41	0.49	22.97	10	27.30	35.25	22.83	504	0.05
77	21.80	35.27	3.00	0.49	24.50	20	27.08	35.26	22.91	496	0.10
121	18.66	35.27	3.04	0.28	25.33	30	26.74	35.27	23.03	485	0.15
179	13.79	34.99	2.98	0.78	26.24	50	24.83	35.27	23.62	428	0.24
238	12.46	34.94	2.30	1.38	26.47	75	22.04	35.27	24.43	351	0.34
268	11.93	34.89	1.68	1.11	26.54	100	20.10	35.28	24.97	300	0.42
298	11.80	34.87	1.32	1.07	26.55	125	18.28	35.25	25.41	257	0.49
328	11.14	34.84	0.74	0.71	26.64	150	16.06	35.13	25.85	216	0.55
357	10.72	34.19	0.76	1.39	26.21	200	13.09	34.96	26.36	167	0.65
476	8.86	34.72	0.65	1.00	26.94	250	12.22	34.91	26.50	155	0.73
600	7.25	34.61	1.19	1.77	27.10	300	11.76	34.87	26.55	149	0.81
719	6.40	34.57	1.46	0.85	27.18	400	10.04	34.77	26.79	127	0.96
761	5.29	34.54	1.75	1.50	27.30	500	8.51	34.72	27.00	107	1.09
954	4.60	34.61	1.60a)	1.88	27.43	600	7.25	34.61	27.10	97	1.20
1190	3.75	34.62	1.89	2.21	27.53	700	6.63	34.57	27.15	92	1.30
1422	3.15	34.61	1.99	2.41b)	27.58	800	4.86	34.54	27.35	74	1.39
						1000	4.43	34.61	27.45	64	1.55
						1200	3.72	34.62	27.53	56	1.69

a) Value uncertain; not used in interpolation.
b) Alternate value, 2.39 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

46

HUGH M. SMITH; April 22, 1958; 1245 GCT; 1°33'S, 140°07'W; sounding, 2300 m; wind, 120°, 10 kt; weather, partly cloudy; sea, slight; wire angle, 15°.

0	27.77	34.87	4.52	0.43	22.39	0	27.77	34.87	22.39	545	0.00
33	27.51	35.11	4.51	0.20	22.66	10	27.69	34.94	22.47	538	0.05
68	25.92	35.25	4.31	0.38	23.27	20	27.61	35.01	22.55	531	0.11
81	23.76	35.39	3.95	0.28	24.03	30	27.53	35.08	22.63	524	0.16
98	19.92	35.40	3.05	0.49	25.11	50	27.21	35.16	22.80	509	0.26
129	15.57	35.16	1.68	0.58	25.99	75	24.85	35.33	23.66	428	0.38
160	13.29	34.99	1.20	0.75	26.34	100	19.56	35.38	25.19	282	0.47
213	12.42	34.90	0.82	1.01	26.45	125	15.98	35.19	25.92	213	0.53
266	11.83	34.92	0.77	0.57	26.58	150	13.84	35.03	26.27	180	0.58
319	11.28	34.85	0.97	0.77	26.63	200	12.44	34.90	26.45	164	0.67
427	9.22	34.71	0.87	0.86	26.88	250	11.99	34.91	26.54	156	0.75
541	8.05	34.67	0.98	0.85	27.03	300	11.49	34.88	26.61	151	0.82
652	6.64	34.59	1.66	1.89	27.17	400	9.75	34.74	26.81	133	0.97
783	5.56	34.62	1.75	1.49	27.33	500	8.43	34.68	26.98	118	1.09
893	5.16	34.56	1.90	2.40	27.33	600	7.29	34.62	27.10	107	1.20
1115	3.93	34.60	2.00	2.28	27.50	700	6.17	34.60	27.24	94	1.30
1340	3.44	34.58	2.19	2.22a)	27.53	800	5.49	34.61	27.33	85	1.39
						1000	4.56	34.57	27.41	78	1.56
						1200	3.74	34.59	27.51	68	1.70

48

HUGH M. SMITH; April 23, 1958; 0042 GCT; 2°32'S, 140°01'W; sounding, 2375 m; wind, 020°, 7 kt; weather, distant precipitation; sea, smooth; wire angle, 34°.

0	28.23	34.62	4.51	0.51	22.06	0	28.23	34.62	22.06	578	0.00
66	26.90	35.28	4.45	0.44	22.98	10	28.03	34.72	22.20	564	0.06
82	27.70	34.68	-	-	22.27	20	27.83	34.82	22.34	551	0.11
86	24.50	35.37	3.98	0.64	23.79	30	27.63	34.92	22.48	537	0.17
112	16.97	35.20	2.00	1.11	25.69	50	27.22	35.12	22.76	510	0.27
131	13.67	34.99	0.78	0.51	26.27	75	26.10	35.36	23.29	459	0.39
139	13.45	34.98	0.93	0.69	26.30	100	18.80	35.78	25.69	231	0.48
184	12.68	34.94	1.40	1.62	26.43	125	14.40	35.04	26.15	187	0.53
227	12.21	34.90	0.88	0.54	26.49	150	13.21	34.96	26.34	169	0.58
269	12.07	34.91	0.31	1.62	26.52	200	12.47	34.92	26.45	158	0.66
350	10.77	34.82	0.67	0.76	26.70	250	12.14	34.90	26.50	154	0.75
436	9.46	-	0.33	1.61		300	11.65	34.87	26.57	147	0.82
517	8.22	34.68	0.64	1.69	27.01	400	10.00	34.78	26.80	126	0.97
600	7.13	34.61	1.23	1.28	27.11	500	8.47	34.68	26.97	109	1.10
685	6.30	34.53	1.63	2.26	27.16	600	7.13	34.61	27.11	96	1.21
863	5.16	34.62	1.77	2.23	27.38	700	6.18	34.53	27.18	90	1.31
1060	4.16	34.56	2.00	2.23b)	27.44	800	5.50	34.57	27.30	79	1.40
						1000	4.46	34.57	27.42	67	1.57

a) Alternate value, 2.29 µg at/L.
b) Alternate value, 2.44 µg at/L; possible double amount of stannous chloride used.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
49	HUGH M. SMITH; April 23, 1958; 0918 GCT; 3°33'S, 139°56'W; sounding, 2400 m; wind, 060°, 9 kt; weather, thunderstorm; sea, slight; wire angle, 37°.										
0	28.21	34.73	4.52	0.38	22.14	0	28.21	34.73	22.14	569	0.00
38	27.96	35.20	4.58	0.38	22.58	10	28.14	34.85	22.26	558	0.06
73	27.72	35.40	4.45	0.50	22.81	20	28.08	34.97	22.37	548	0.11
90	25.44	35.75	4.17	0.62	23.79	30	28.01	35.10	22.49	536	0.17
106	20.61	35.65	3.67	0.64	25.11	50	27.94	35.24	22.62	524	0.27
124	15.86	35.26	2.06	0.57	26.00	75	27.56	35.44	22.89	498	0.40
151	13.41	34.98	1.08	1.11	26.31	100	22.54	35.72	24.63	332	0.51
180	12.91	34.96	0.93	0.88	26.40	125	15.70	35.24	26.02	200	0.57
223	12.56	34.95	1.26	0.58	26.46	150	13.43	34.98	26.31	172	0.62
266	12.36	34.93	0.38	0.88	26.48	200	12.71	34.95	26.43	161	0.71
349	11.07	34.79	0.26	0.85	26.62	250	12.44	34.94	26.48	156	0.79
435	9.19	34.72	0.32	1.11	26.89	300	11.93	34.87	26.52	152	0.87
517	7.75	34.67	0.70	1.82	27.07	400	9.97	34.74	26.77	128	1.02
601	6.75	34.63	1.14	2.06	27.18	500	8.02	34.67	27.03	104	1.14
685	5.93	34.59	1.47	2.39	27.26	600	6.76	34.63	27.18	89	1.25
854	5.00	34.62	1.64	2.21	27.40	700	5.82	34.59	27.27	81	1.34
1028	4.27	34.56	2.14	1.96a)	27.43	800	5.23	34.60	27.35	73	1.43
						1000	4.39	34.57	27.42	66	1.59
50	HUGH M. SMITH; April 23, 1958; 1351 GCT; 3°04'S, 139°56'W; sounding, 2375 m; wind, 030°, 11 kt; weather, partly cloudy; sea, slight; wire angle, 27°.										
0	28.06	34.65	4.52	0.35	22.13	0	28.06	34.65	22.13	570	0.00
38	27.96	34.66	4.50	0.42	22.17	10	28.03	34.65	22.14	569	0.06
67	27.44	35.32	4.43	0.35	22.84	20	28.01	34.65	22.15	569	0.11
92	23.14	35.46	3.73	0.62	24.26	30	27.98	34.65	22.16	568	0.17
104	18.49	35.42	3.05	0.84	25.49	50	27.82	34.93	22.42	543	0.28
122	16.06	35.24	2.04	0.54	25.94	75	26.65	35.40	23.15	473	0.41
146	13.27	34.99	1.36	1.06	26.35	100	20.00	35.50	25.16	281	0.50
201	12.78	-	1.69	0.86		125	15.65	35.20	26.00	202	0.57
251	12.44	34.94	0.97	0.54	26.48	150	13.09	34.98	26.38	166	0.61
300	12.22	34.94	0.58	1.37	26.52	200	12.75	34.96	26.43	161	0.70
399	9.97	34.78	0.33	1.10	26.80	250	12.45	34.94	26.47	157	0.78
503	8.21	34.64	0.48	1.75	26.98	300	12.22	34.94	26.52	152	0.86
604	6.79	34.58	1.14	0.96	27.14	400	9.95	34.77	26.80	126	1.01
705	5.99	34.63	1.54	2.09	27.28	500	8.25	34.64	26.97	109	1.13
804	5.36	34.54	1.89	2.38	27.29	600	6.84	34.58	27.13	94	1.24
1005	4.46	34.56	1.91	2.39	27.41	700	6.02	34.62	27.27	81	1.34
1210	3.59	34.57	2.08	2.29b)	27.51	800	5.38	34.54	27.29	79	1.43
						1000	4.48	34.55	27.40	69	1.60
						1200	3.63	34.57	27.50	59	1.75

a) Alternate value, 1.61 µg at/L.
b) Alternate value, 2.36 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

51

HUGH M. SMITH; April 23, 1958; 2300 GCT; 2°06'S, 140°16'W; sounding, 2350 m; wind, 020°, 4 kt; weather, partly cloudy; sea, slight; wire angle, 02°.

0	28.22	34.60	4.57	0.42	22.04	0	28.22	34.60	22.04	579	0.00
48	27.25	35.00	4.58	0.53	22.66	10	28.02	34.68	22.17	567	0.06
86	23.18	35.29	4.43a)	0.47	24.12	20	27.82	34.76	22.29	555	0.11
120	16.72	35.17	1.93	1.16	25.73	30	27.61	34.85	22.43	542	0.17
144	13.95	34.97	0.90	1.47	26.19	50	27.11	35.02	22.72	514	0.27
178	12.79	34.90	0.73	1.26	26.38	75	24.68	35.23	23.63	427	0.39
236	12.35	34.89	0.57	1.36	26.45	100	20.50	35.32	24.89	307	0.49
279	12.09	34.87	0.42	1.06	26.49	125	16.02	35.12	25.85	216	0.55
317	11.59	34.84	0.33	0.85	26.56	150	13.60	34.94	26.24	179	0.60
351	11.23	34.80	0.85	1.49	26.60	200	12.50	34.88	26.42	162	0.69
467	8.82	34.68	0.84	1.04	26.92	250	12.28	34.88	26.46	158	0.77
588	7.40	34.60	1.36	1.07	27.07	300	11.82	34.85	26.53	152	0.85
704	6.26	34.54	1.68	1.82	27.18	400	10.26	34.74	26.72	133	1.00
819	5.54	34.54	1.77	1.49	27.27	500	8.37	34.65	26.96	110	1.13
934	5.00	34.57	1.88	2.72	27.36	600	7.27	34.59	27.08	99	1.25
1163	3.88	34.59	2.09	1.14	27.49	700	6.29	34.54	27.17	90	1.35
1394	3.22	34.59	2.09	2.38b)	27.56	800	5.64	34.53	27.25	83	1.45
						1000	4.66	34.57	27.39	69	1.62
						1200	3.77	34.59	27.51	59	1.77

52

HUGH M. SMITH; April 24, 1958; 1301 GCT; 0°58'S, 140°02'W; sounding, 2300 m; wind, 150°, 6 kt; weather, partly cloudy; sea, slight; wire angle, 15°.

0	27.65	35.11	4.56	0.69	22.61	0	27.65	35.11	22.61	524	0.00
19	27.50	35.09	4.51	0.48	22.65	10	27.57	35.09	22.63	523	0.05
48	27.03	35.27	4.50	0.58	22.93	20	27.51	35.09	22.65	522	0.10
88	22.29	35.52	3.32	0.68	24.55	30	27.49	35.14	22.69	518	0.16
132	18.32	35.46	2.74	0.74	25.56	50	26.84	35.28	23.01	489	0.26
171	14.15	35.15	2.36	0.85	26.29	75	24.03	35.45	24.00	395	0.37
239	12.12	34.88	1.22	1.00	26.49	100	21.18	35.53	24.87	313	0.46
284	11.76	34.87	0.99	1.01	26.55	125	18.93	35.49	25.43	260	0.53
324	11.08	34.86	1.07	0.87	26.67	150	16.30	35.32	25.95	211	0.59
358	10.22	34.75	0.70	2.02	26.74	200	12.77	34.99	26.45	164	0.68
476	8.39	34.75	0.74	1.40	27.04	250	12.02	34.87	26.51	160	0.76
616	6.87	34.60	1.38	1.20	27.14	300	11.53	34.87	26.60	152	0.84
714	5.83	34.56	1.75	1.30	27.25	400	9.44	34.72	26.85	129	0.98
945	4.72	34.57	2.14	2.58	27.39	500	8.10	34.72	27.06	110	1.10
1173	3.83	34.57	1.90	2.40	27.48	600	7.02	34.61	27.14	103	1.21
1400	3.22	34.56	2.15	2.11c)	27.54	700	5.97	34.56	27.23	94	1.30
						800	5.29	34.55	27.31	87	1.39
						1000	4.48	34.57	27.42	78	1.56
						1200	3.76	34.56	27.49	70	1.71

a) Value uncertain; used in interpolation.
b) Alternate value, 2.46 µg at/L.
c) Alternate value, 1.90 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
53	HUGH M. SMITH; April 24, 1958; 2143 GCT; 0°01'S, 139°59'W; sounding, missing; wind, 130°, 13 kt; weather, partly cloudy; sea, slight; wire angle, 17°.										
0	27.49	35.24	4.50	0.56	22.76	0	27.49	35.24	22.76	510	0.00
48	25.27	35.40	3.69	0.72	23.58	10	27.40	35.27	22.81	505	0.05
81	20.56	35.18	2.97	0.90	24.77	20	27.20	35.30	22.90	497	0.10
96	19.30	35.33	2.97	0.68	25.21	30	26.80	35.34	23.06	482	0.15
127	16.43	35.13	3.05	1.08	25.77	50	24.98	35.38	23.66	425	0.24
164	14.07	34.96	3.01	1.20	26.16	75	21.41	35.20	24.55	339	0.34
198	12.68	34.93	2.65	0.84	26.42	100	18.92	35.32	25.30	268	0.41
237	12.16	34.86	2.08	0.69	26.47	125	16.61	35.15	25.74	226	0.48
297	11.13	34.83	0.61	1.31	26.64	150	14.84	35.01	26.03	198	0.53
357	10.23	34.76	0.76	0.74	26.74	200	12.64	34.92	26.42	162	0.62
478	8.68	34.60	0.78	0.98	26.88	250	11.94	34.85	26.50	154	0.70
604	7.11	34.61	1.25	2.10	27.12	300	11.08	34.82	26.64	141	0.78
723	6.10	34.58	1.58	1.55	27.23	400	9.66	34.69	26.79	127	0.92
962	4.57	34.61	1.91	2.42	27.44	500	8.39	34.59	26.91	115	1.05
1197	3.62	34.62	1.92	2.49	27.54	600	7.16	34.60	27.10	97	1.17
1426	3.16	34.62	2.04	2.57a)	27.59	700	6.27	34.58	27.21	87	1.27
						800	5.54	34.58	27.30	78	1.36
						1000	4.38	34.61	27.46	63	1.52
						1200	3.61	34.62	27.55	55	1.66
56	HUGH M. SMITH; April 25, 1958; 1929 GCT; 0°09'N, 140°10'W; sounding, 2350 m; wind, 100°, 16 kt; weather, partly cloudy; sea, slight; wire angle, 19°.										
0	27.17	35.25	4.38	0.42	22.87	0	27.17	35.25	22.87	500	0.00
32	26.84	35.29	4.22	0.65	23.01	10	27.07	35.26	22.91	496	0.05
59	25.20	35.33	3.54	0.86	23.55	20	26.96	35.27	22.96	492	0.10
93	20.89	35.26	2.92	1.07	24.74	30	26.86	35.28	22.99	488	0.15
138	16.72	35.18	2.93	1.10	25.74	50	25.90	35.28	23.30	459	0.24
162	15.76	35.19	3.04	1.28	25.97	75	23.27	35.40	24.18	375	0.35
195	13.43	34.94	2.80	1.17	26.28	100	20.08	35.24	24.94	302	0.43
227	12.78	34.90	2.72	1.54	26.38	125	17.68	35.19	25.51	248	0.50
283	11.83	34.86	1.46	1.42	26.53	150	16.22	35.19	25.86	215	0.56
339	11.03	34.81	0.53	2.98	26.64	200	13.27	34.92	26.29	174	0.66
457	8.92	34.79	0.59	2.98	26.99	250	12.37	34.88	26.44	159	0.75
574	7.21	34.65	1.21	1.61	27.13	300	11.59	34.84	26.56	148	0.83
683	6.52	34.68	1.40	3.20	27.25	400	9.95	34.80	26.82	123	0.97
788	5.42	34.56	1.73	2.74	27.30	500	8.21	34.73	27.05	102	1.09
891	4.67	34.59	1.93	3.30	27.41	600	7.03	34.65	27.16	92	1.20
1114	3.90	34.61	1.86	1.48	27.51	700	6.34	34.66	27.26	82	1.30
1339	3.23	34.65	2.00	3.30	27.61	800	5.32	34.56	27.31	77	1.39
						1000	4.21	34.60	27.47	62	1.54
						1200	3.64	34.62	27.54	55	1.68

a) Alternate value, 2.42 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HUGH M. SMITH; April 26, 1958; 2209 GCT; 0°02'S, 140°02'W; sounding, 2350 m; wind, 140°, 12 kt; weather, distant precipitation; sea, slight; wire angle, 28°.											59
0	27.35	35.29	4.33	0.63a)	22.85	0	27.35	35.29	22.84	502	0.00
33	26.77	35.30	4.24	2.04	23.04	10	27.17	35.29	22.90	497	0.05
71	24.71	35.46	3.50	1.09	23.80	20	27.00	35.29	22.96	491	0.10
104	20.94	35.21	2.94	2.57	24.69	30	26.82	35.29	23.01	486	0.15
137	17.24	35.19	3.05	1.45	25.62	50	26.09	35.28	23.24	465	0.24
170	14.85	35.06	3.07	1.10	26.07	75	24.30	35.43	23.90	402	0.35
203	13.36	34.94	2.87	1.20	26.29	100	21.44	35.24	24.58	337	0.45
252	12.40	34.89	2.39	1.07	26.45	125	18.51	35.26	25.36	262	0.52
302	11.38	34.84	0.69	2.07	26.60	150	16.17	35.14	25.83	217	0.58
347	10.66	34.82	0.62	2.15	26.72	200	13.46	34.94	26.27	176	0.68
469	8.84	34.69	0.61	1.57	26.92	250	12.42	34.89	26.44	160	0.77
596	7.06	34.60	1.23	1.72	27.12	300	11.42	34.84	26.59	145	0.85
720	6.06	34.59	1.60	1.57	27.24	400	9.85	34.76	26.81	125	0.99
961	4.61	34.57	1.99	2.30	27.40	500	8.36	34.66	26.97	109	1.12
1197	3.88	34.59	1.86	1.85	27.49	600	7.02	34.59	27.11	96	1.23
1427	3.21	34.61	2.07	1.60b)	27.58	700	6.19	34.58	27.22	86	1.33
						800	5.50	34.58	27.30	78	1.42
						1000	4.46	34.57	27.42	67	1.59
						1200	3.87	34.59	27.50	60	1.74
HUGH M. SMITH; April 27, 1958; 0008 GCT; 0°02'S, 140°02'W; sounding, 2350 m; wind, 110°, 8 kt; weather, distant precipitation; sea, slight; wire angle, 25°.											60
0	27.39	35.30	4.31	0.62	22.84	0	27.39	35.30	22.84	503	0.00
42	26.30	35.27	4.07	0.86	23.16	10	27.13	35.29	22.92	495	0.05
71	24.18	35.41	3.36	0.80	23.92	20	26.87	35.28	22.99	488	0.10
105	18.96	35.28	3.03	0.79	25.26	30	26.61	35.27	23.07	481	0.15
138	16.30	35.18	3.04	0.89	25.83	50	25.88	35.31	23.33	456	0.24
172	14.26	35.00	3.03	0.85	26.15	75	23.58	35.40	24.09	384	0.35
205	13.16	34.95	2.85	0.85	26.34	100	19.74	35.21	25.01	296	0.43
255	12.24	34.94	2.20	0.96	26.52	125	17.17	35.22	25.66	234	0.50
304	11.14	34.85	0.61	1.41	26.65	150	15.49	35.11	25.97	205	0.56
349	10.39	34.77	0.69	1.36	26.72	200	13.29	34.95	26.31	172	0.65
470	8.76	34.71	0.69	2.92	26.95	250	12.32	34.94	26.50	154	0.74
598	7.06	34.62	1.23	1.58	27.13	300	11.23	34.85	26.64	141	0.81
719	6.19	34.57	1.54	1.57	27.21	400	9.67	34.73	26.82	124	0.95
961	4.59	34.57	1.97	1.57	27.40	500	8.32	34.68	26.99	107	1.08
1200	3.86	34.59	1.89	1.57	27.50	600	7.04	34.61	27.13	95	1.19
1437	3.19	34.58	2.04	1.69c)	27.55	700	6.30	34.57	27.20	88	1.29
						800	5.60	34.56	27.28	80	1.38
						1000	4.44	34.57	27.42	67	1.55
						1200	3.86	34.59	27.50	60	1.70

a) Possible contamination of these phosphate samples.
b) Alternate value, 1.48 μg at/L.
c) Alternate value, 2.09 μg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
61	HUGH M. SMITH; April 27, 1958; 0202 GCT; 0°01'S, 140°02'W; sounding, 2350 m; wind, 110°, 12 kt; weather, distant precipitation; sea, slight; wire angle, 30°.										
0	27.39	35.32	4.37	0.90	22.85	0	27.39	35.32	22.85	501	0.00
28	26.77	35.33	4.23	0.77	23.06	10	27.17	35.32	22.93	495	0.05
70	24.30	35.50	3.37	0.90	23.95	20	26.95	35.32	23.00	488	0.10
89	22.06	35.32	2.99	1.03	24.46	30	26.71	35.34	23.09	479	0.15
112	19.07	35.30	2.99	0.95	25.25	50	25.80	35.45	23.46	444	0.24
146	16.66	35.19	3.01	0.93	25.76	75	23.75	35.45	24.08	385	0.34
184	14.58	35.09	3.16	1.26	26.15	100	20.58	35.21	24.79	317	0.43
218	13.10	34.89	2.84	1.35	26.31	125	17.98	35.26	25.49	250	0.50
286	11.81	34.85	1.47	0.89	26.53	150	16.42	35.18	25.81	220	0.56
346	10.72	34.79	0.61	2.54	26.68	200	13.83	34.99	26.23	179	0.67
465	8.83	34.72	0.63	2.63	26.95	250	12.35	34.84	26.42	162	0.76
593	7.01	34.61	1.23	2.63	27.13	300	11.55	34.83	26.56	148	0.84
716	6.21	34.57	1.54	2.75	27.21	400	9.83	34.75	26.81	125	0.98
838	5.14	34.59	1.78	2.66	27.36	500	8.27	34.68	27.00	106	1.11
960	4.58	34.60	1.92	2.71	27.43	600	6.96	34.60	27.13	94	1.21
1197	3.84	34.62	1.93	2.64	27.52	700	6.30	34.57	27.20	88	1.32
1429	3.16	34.66	2.03	2.78a)	27.62	800	5.46	34.58	27.31	77	1.41
						1000	4.44	34.60	27.44	65	1.57
						1200	3.83	34.62	27.52	57	1.71
62	HUGH M. SMITH; April 27, 1958; 0411 GCT; 0°01'N, 140°03'W; sounding, 2350 m; wind, 110°, 13 kt; weather, distant precipitation; sea, slight; wire angle, 25°.										
0	27.34	35.26	4.31	0.70	22.83	0	27.34	35.26	22.83	504	0.00
20	26.94	35.28	4.30	0.64	22.97	10	27.14	35.27	22.90	497	0.05
33	26.64	35.28	4.23	0.77	23.06	20	26.94	35.28	22.97	490	0.10
69	23.05	35.31	3.14	0.89	24.17	30	26.73	35.28	23.04	484	0.15
82	20.27	35.18	2.93	0.98	24.85	50	25.57	35.32	23.43	446	0.24
104	18.55	35.28	3.01	1.03	25.37	75	21.73	35.24	24.50	345	0.34
162	15.71	35.13	3.04	1.18	25.93	100	18.71	35.29	25.33	265	0.42
217	13.24	34.94	2.85	1.32	26.32	125	17.37	35.26	25.64	235	0.48
269	12.39	34.92	2.32	1.61	26.47	150	16.19	35.18	25.86	215	0.54
324	11.17	34.85	0.54	2.18	26.65	200	13.91	34.99	26.22	181	0.64
436	8.99	34.71	0.62	2.57	26.91	250	12.63	34.92	26.42	161	0.73
559	7.31	34.61	1.13	3.21	27.09	300	11.72	34.88	26.57	148	0.81
676	6.54	34.58	1.42	2.84	27.17	400	9.63	34.75	26.84	122	0.95
798	5.56	34.56	1.63	2.71	27.28	500	8.01	34.65	27.02	105	1.07
918	4.82	34.60	1.92	2.88	27.40	600	7.00	34.59	27.12	96	1.18
1156	3.98	34.56	1.85	2.47	27.46	700	6.35	34.57	27.19	89	1.29
1393	3.30	34.60	1.99	2.66b)	27.56	800	5.55	34.56	27.28	80	1.38
						1000	4.47	34.59	27.43	66	1.55
						1200	3.85	34.56	27.47	62	1.69

a) Alternate value, 2.45 µg at/L.
b) Alternate value, 2.78 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

63

HUGH M. SMITH; April 27, 1958; 0609 GCT; 0°01'N, 140°03'W; sounding, 2350 m; wind, 100°, 10 kt; weather, partly cloudy; sea, slight; wire angle, 33°.

0	27.29	35.31	4.36	0.62	22.88	0	27.29	35.31	22.88	499	0.00
22	27.06	35.32	4.30	0.61	22.96	10	27.19	35.31	22.91	496	0.05
48	26.35	35.28	4.00	0.68	23.16	20	27.08	35.31	22.95	492	0.10
79	24.07	35.41	3.30	0.91	23.95	30	26.93	35.30	22.99	489	0.15
106	19.64	35.21	2.94	1.25	25.04	50	26.27	35.29	23.19	469	0.24
151	16.61	35.16	3.00	1.15	25.75	75	24.49	35.39	23.81	410	0.36
191	14.54	34.98	2.99	1.30	26.07	100	20.64	35.20	24.76	319	0.45
234	13.00	34.92	2.81	1.45	26.35	125	17.98	35.27	25.50	249	0.52
276	12.32	34.94	2.29	1.44	26.50	150	16.64	35.16	25.74	226	0.58
329	11.16	34.87	0.55	2.18	26.66	200	14.15	34.95	26.14	189	0.69
448	8.94	34.82	0.61	2.34	27.01	250	12.71	34.92	26.41	163	0.78
577	7.18	34.63	1.16	2.74	27.12	300	11.81	34.91	26.57	147	0.86
698	6.47	34.66	1.47	2.91	27.24	400	9.77	34.83	26.88	118	1.00
820	5.35	34.58	1.76	2.54	27.32	500	8.13	34.73	27.06	101	1.12
941	4.71	34.64	1.89	2.82	27.44	600	7.03	34.63	27.14	93	1.22
1179	3.91	34.60	1.83	3.00	27.50	700	6.45	34.65	27.24	84	1.32
1411	3.23	34.67	2.00	2.85a)	27.62	800	5.53	34.59	27.31	77	1.41
						1000	4.48	34.63	27.46	63	1.57
						1200	3.85	34.60	27.51	59	1.71

64

HUGH M. SMITH; April 27, 1958; 0808 GCT; 0°02'N, 140°03'W; sounding, 2325 m; wind, 120°, 9 kt; weather, overcast; sea, slight; wire angle, 32°.

0	27.24	35.26	4.37	0.69	22.86	0	27.24	35.26	22.86	501	0.00
33	26.80	35.28	4.28	0.62	23.01	10	27.11	35.26	22.90	497	0.05
71	24.40	35.42	3.36	0.89	23.86	20	26.97	35.27	22.95	492	0.10
104	19.56	35.16	2.95	1.12	25.02	30	26.84	35.27	22.99	488	0.15
113	19.27	35.33	3.00	1.06	25.22	50	26.06	35.36	23.31	458	0.24
160	16.10	35.17	3.04	1.10	25.87	75	23.72	35.36	24.02	390	0.35
189	14.62	35.00	2.94	1.39	26.07	100	20.06	35.16	24.89	307	0.44
199	13.92	35.01	3.01	1.62	26.23	125	18.55	35.33	25.41	258	0.51
284	12.12	34.91	1.90	1.36	26.51	150	16.85	35.22	25.74	227	0.57
344	10.90	34.83	0.55	2.07	26.68	200	13.88	35.01	26.24	179	0.68
462	8.88	34.72	0.63	-	26.94	250	12.85	34.97	26.42	162	0.76
587	7.06	34.66	1.23	2.75	27.16	300	11.79	34.88	26.55	149	0.84
707	6.03	34.57	1.54	2.52	27.23	400	9.89	34.77	26.81	125	0.99
828	5.14	34.58	1.73	2.66	27.35	500	8.27	34.70	27.02	105	1.11
948	4.62	-	1.91	2.74		600	6.93	34.64	27.17	91	1.22
1187	3.84	34.68	1.84	2.59	27.57	700	6.08	34.57	27.22	85	1.32
1423	3.14	34.62	1.99	2.71b)	27.59	800	5.32	34.56	27.31	77	1.41
						1000	4.43	34.61	27.45	64	1.57
						1200	3.80	34.67	27.57	53	1.71

a) Alternate value, 2.95 µg at/L.
b) Alternate value, 2.57 µg at/L.

65 HUGH M. SMITH; April 27, 1958; 1014 GCT; 0°02'N, 140°03'W; sounding, 2325 m; wind, 120°, 10 kt; weather, cloudy; sea, slight; wire angle, 28°.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
0	27.18	35.25	4.30	0.61	22.87	0	27.18	35.25	22.87	500	0.00
19	27.10	35.30	4.23	0.67	22.93	10	27.14	35.27	22.90	497	0.05
42	26.44	35.26	4.03	0.72	23.11	20	27.09	35.29	22.93	494	0.10
87	22.24	35.31	2.91	1.01	24.41	30	26.89	35.28	22.98	489	0.15
110	19.30	35.32	3.01	0.93	25.21	50	25.91	35.26	23.28	461	0.24
139	16.80	-	3.06	1.23		75	23.65	35.40	24.07	385	0.35
173	15.06	35.08	2.99	1.36	26.04	100	20.56	35.20	24.78	317	0.44
207	13.38	35.04	2.85	1.58	26.37	125	17.86	35.28	25.54	245	0.51
291	11.73	34.99	1.34	2.03	26.65	150	16.16	35.15	25.84	216	0.57
351	10.63	34.80	0.61	2.42	26.71	200	13.70	35.03	26.29	174	0.67
473	8.84	34.71	0.67	2.09	26.94	250	12.30	35.02	26.57	148	0.75
599	6.98	34.64	1.24	2.44	27.16	300	11.56	34.96	26.66	139	0.83
721	5.93	34.59	1.71	2.27	27.26	400	9.88	34.73	26.78	127	0.97
843	4.90	34.57	1.85	2.67	27.37	500	8.41	34.69	26.99	108	1.10
964	4.58	34.60	1.90	2.86	27.43	600	6.97	34.63	27.15	92	1.20
1202	3.61	34.62	1.86	3.02	27.55	700	6.08	34.59	27.24	84	1.30
1436	3.14	34.62	1.99	2.68a)	27.59	800	5.22	34.57	27.33	75	1.39
						1000	4.43	34.60	27.44	65	1.55
						1200	3.62	34.62	27.54	55	1.69

66 HUGH M. SMITH; April 27, 1958; 1212 GCT; 0°03'N, 140°04'W; sounding, 2350 m; wind, 130°, 10 kt; weather, cloudy; sea, slight; wire angle, 26°.

0	27.17	35.28	4.36	0.80	22.90	0	27.17	35.28	22.90	497	0.00
33	26.84	35.29	4.23	0.69	23.01	10	27.07	35.28	22.93	494	0.05
81	22.44	35.23	3.01	0.95	24.29	20	26.97	35.28	22.96	491	0.10
120	18.40	35.34	2.99	1.22	25.45	30	26.87	35.28	22.99	488	0.15
143	16.48	35.18	3.01	1.22	25.79	50	25.58	35.39	23.48	442	0.24
168	15.33	35.07	3.01	1.31	25.97	75	23.13	35.31	24.15	378	0.34
202	13.35	34.97	2.84	1.32	26.32	100	20.44	35.16	24.79	317	0.43
221	12.90	34.96	2.84	1.54	26.40	125	17.93	35.31	25.54	245	0.50
280	11.80	34.81	1.39	1.98	26.50	150	16.12	35.14	25.85	216	0.56
330	10.84	34.83	0.54	2.44	26.69	200	13.45	34.97	26.30	173	0.66
450	8.87	34.73	0.63	2.78	26.95	250	12.33	34.94	26.50	154	0.75
574	7.07	34.64	1.23	2.61	27.15	300	11.41	34.88	26.63	142	0.82
690	6.35	34.63	1.46	2.71	27.24	400	9.65	34.78	26.86	120	0.96
807	5.18	34.59	1.76	2.66	27.35	500	8.07	34.68	27.03	104	1.08
923	4.64	34.57	2.01	2.87	27.40	600	6.89	34.63	27.16	91	1.19
1154	3.94	34.57	1.83	2.88	27.47	700	6.25	34.62	27.24	84	1.29
1381	3.30	34.59	1.99	2.80	27.55	800	5.25	34.59	27.34	74	1.38
						1000	4.38	34.56	27.42	67	1.54
						1200	3.81	34.57	27.49	61	1.68

a) Alternate value, 2.89 μg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HUGH M. SMITH; April 27, 1958; 1409 GCT; 0°04'N, 140°04'W; sounding, 2350 m; wind, 130°, 8 kt; weather, slight to moderate thunderstorm; sea, smooth; wire angle, 23°.											67
0	27.14	35.27	4.30	1.43a)	22.90	0	27.14	35.27	22.90	497	0.00
24	27.08	35.31	4.28	0.74	22.95	10	27.11	35.28	22.92	496	0.05
42	26.50	35.30	4.08	0.80	23.12	20	27.09	35.30	22.94	494	0.10
67	24.82	35.43	3.54	1.00	23.74	30	26.94	35.30	22.99	490	0.15
101	19.53	35.23	2.94	0.89	25.08	50	26.12	35.34	23.28	463	0.24
115	18.30	35.24	3.05	1.14	25.40	75	23.58	35.38	24.08	387	0.35
168	15.11	35.04	2.97	1.54	26.00	100	19.69	35.23	25.04	296	0.44
222	12.85	34.93	2.78	1.69	26.39	125	17.57	35.21	25.56	248	0.50
281	11.96	34.85	1.40	2.00	26.50	150	16.01	35.12	25.86	220	0.56
330	10.85	34.82	0.58	2.63	26.68	200	13.63	34.96	26.26	183	0.66
451	8.88	34.70	0.67	2.92	26.92	250	12.36	34.88	26.45	165	0.75
575	7.09	34.61	1.23	3.00	27.12	300	11.54	34.83	26.57	155	0.83
694	6.23	34.62	1.53	2.92	27.24	400	9.63	34.75	26.84	130	0.97
812	5.16	34.53	1.77	3.06	27.31	500	8.10	34.65	27.01	115	1.09
929	4.63	34.54	2.15	3.08	27.37	600	6.88	34.61	27.15	102	1.20
1157	3.90	34.56	1.84	3.12	27.47	700	6.17	34.61	27.25	93	1.30
1379	3.29	34.61	1.99	3.00b)	27.57	800	5.26	34.53	27.30	88	1.39
						1000	4.38	34.54	27.41	78	1.56
						1200	3.78	34.57	27.49	71	1.70
HUGH M. SMITH; April 27, 1958; 1606 GCT; 0°04'N, 140°04'W; sounding, 2350 m; wind, 130°, 11 kt; weather, cloudy; sea, slight; wire angle, 31°.											68
0	27.12	35.24	4.37	0.74	22.88	0	27.12	35.24	22.88	499	0.00
41	26.62	35.28	4.16	0.72	23.07	10	27.00	35.25	22.93	494	0.05
83	22.16	35.35	2.95	1.02	24.46	20	26.88	35.26	22.97	490	0.10
106	18.94	35.33	2.99	1.06	25.31	30	26.75	35.26	23.01	486	0.15
130	17.51	35.26	2.97	1.15	25.61	50	25.91	35.30	23.31	458	0.24
149	16.08	35.15	3.03	1.27	25.86	75	23.23	35.42	24.21	372	0.35
172	15.17	-	2.99	1.35		100	19.72	35.23	25.03	294	0.43
217	13.09	34.96	2.72	2.15	26.36	125	17.74	35.28	25.57	243	0.50
276	12.05	34.88	1.90	1.92	26.51	150	16.03	35.17	25.89	212	0.56
327	11.02	34.80	0.50c)	2.53	26.64	200	13.83	35.01	26.25	178	0.66
450	8.87	34.72	1.30	2.90	26.94	250	12.40	34.90	26.45	159	0.74
573	7.14	34.60	1.17	2.92	27.11	300	11.57	34.84	26.56	148	0.82
691	6.42	34.59	1.37	2.97	27.20	400	9.69	34.74	26.82	124	0.97
807	5.31	34.58	1.84	2.98	27.33	500	8.08	34.66	27.02	105	1.09
924	4.70	34.57	1.86	2.90	27.39	600	6.95	34.59	27.12	95	1.20
1156	3.96	34.62	1.87	3.26	27.51	700	6.33	34.58	27.20	88	1.30
1381	3.34	34.62	1.97	2.74d)	27.57	800	5.38	34.58	27.32	76	1.39
						1000	4.42	34.58	27.43	66	1.56
						1200	3.84	34.62	27.52	57	1.70

a) Value uncertain; used in interpolation.
b) Alternate value, 2.62 μg at/L.
c) Estimated value owing to overtitration.
d) Alternate value, 3.02 μg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
69	HUGH M. SMITH; April 27, 1958; 1804 GCT; 0°04'N, 140°04'W; sounding, 2350 m; wind, 130°, 10 kt; weather, partly cloudy; sea, slight; wire angle, 26°.										
0	27.14	35.24	4.31	1.32	22.87	0	27.14	35.24	22.87	499	0.00
33	26.88	35.22	4.20	1.14	22.94	10	27.06	35.23	22.89	498	0.05
75	23.72	35.36	3.17	1.16	24.02	20	26.98	35.22	22.91	496	0.10
109	19.39	35.30	2.97	1.07	25.17	30	26.90	35.22	22.94	493	0.15
133	17.76	35.26	3.01	1.34	25.55	50	25.94	35.28	23.28	460	0.24
157	15.97	35.08	3.02	1.40	25.83	75	23.72	35.36	24.02	390	0.35
190	14.24	34.94	2.88	1.27	26.11	100	20.50	35.20	24.80	316	0.44
229	12.87	34.89	2.75	1.35	26.35	125	18.25	35.28	25.44	255	0.51
288	12.07	34.92	1.92	-	26.53	150	16.48	35.13	25.75	225	0.57
347	10.89	34.76	0.54	2.49	26.63	200	13.82	34.91	26.17	185	0.68
467	8.87	34.68	0.64	2.63	26.91	250	12.52	34.90	26.43	161	0.77
594	7.17	34.61	1.19	2.74	27.11	300	11.84	34.89	26.55	149	0.85
717	6.42	34.59	1.46	3.62	27.20	400	9.94	34.70	26.75	131	1.00
838	5.24	34.55	1.71	3.62	27.31	500	8.36	34.65	26.96	110	1.13
960	4.62	34.55	1.90	2.54	27.38	600	7.13	34.60	27.11	97	1.24
1200	3.90	34.61	1.92	2.86	27.51	700	6.51	34.59	27.18	89	1.34
1432	3.24	34.57	1.96	1.81a)	27.54	800	5.60	34.56	27.28	80	1.44
						1000	4.48	34.56	27.41	68	1.61
						1200	3.90	34.61	27.51	59	1.75
70	HUGH M. SMITH; April 27, 1958; 2027 GCT; 0°04'N, 140°06'W; sounding, 2350 m; wind, 160°, 12 kt; weather, cloudy; sea, slight; wire angle, 28-30°.										
0	27.27	35.28	4.38	-	22.86	0	27.27	35.28	22.86	500	0.00
56	26.18	35.26	3.93	-	23.19	10	27.08	35.27	22.92	495	0.05
78	24.02	35.40	3.24	1.34b)	23.96	20	26.88	35.27	22.98	490	0.10
102	20.96	35.26	2.92	1.98	24.72	30	26.69	35.26	23.04	485	0.15
125	17.98	35.18	3.01	1.53	25.43	50	26.30	35.26	23.16	474	0.24
158	16.26	35.15	3.02	1.95	25.82	75	24.36	35.38	23.85	410	0.35
191	14.04	34.96	2.91	1.70	26.17	100	21.23	35.27	24.66	333	0.45
225	12.89	34.88	2.69	1.73	26.34	125	17.98	35.18	25.43	260	0.52
284	12.14	34.93	2.00	2.58	26.53	150	16.56	35.16	25.76	229	0.58
345	10.98	34.85	0.54	4.41	26.68	200	13.65	34.92	26.22	186	0.69
465	8.87	34.70	0.61	3.61	26.92	250	12.50	34.89	26.43	167	0.77
592	7.13	34.58	1.22	3.77	27.09	300	11.85	34.91	26.57	155	0.85
712	6.34	34.59	1.47	3.46	27.21	400	9.97	34.77	26.80	134	1.00
832	5.18	34.53	1.78	3.69	27.30	500	8.32	34.65	26.98	118	1.12
952	4.60	34.60	1.94	4.99	27.43	600	7.07	34.58	27.10	107	1.24
1188	3.75	34.60	1.89	3.71	27.52	700	6.41	34.58	27.20	98	1.34
1418	3.21	34.57	2.01	3.62c)	27.54	800	5.48	34.54	27.28	90	1.43
						1000	4.40	34.60	27.45	74	1.60
						1200	3.72	34.59	27.52	68	1.74

a) Alternate value, 2.33 µg at/L.
b) Values uncertain owing to contamination of glassware.
c) Alternate value, 3.56 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

HUGH M. SMITH; June 15, 1958; 1910 GCT; 0°00', 140°02'W; sounding, missing; wind, 120°, 10 kt; weather, partly cloudy; sea, smooth; wire angle, 34°.

0	27.30	34.67	4.31	0.47	22.39	0	27.30	34.67	22.39	545	0.00
9	27.09	34.72	4.25	0.45	22.50	10	27.07	34.73	22.52	534	0.05
69	24.08	35.35	3.20	0.48	23.90	20	26.80	34.85	22.69	518	0.11
101	20.73	35.26	2.88	1.02	24.78	30	26.44	34.97	22.90	499	0.16
134	19.21	35.26	2.91	0.91	25.18	50	25.42	35.17	23.37	454	0.25
166	14.86	35.01	2.99	0.84	26.03	75	23.43	35.34	24.09	386	0.36
198	13.57	34.97	2.97	1.28	26.27	100	20.83	35.26	24.76	323	0.45
221	12.60	34.92	2.59	1.83	26.43	125	19.68	35.26	25.07	294	0.52
278	12.16	34.83	2.16	1.29	26.45	150	17.02	35.13	25.63	241	0.59
336	11.04	34.79	0.60	1.29	26.62	200	13.48	34.96	26.29	180	0.70
456	9.49	34.70	0.51	1.56	26.82	250	12.24	34.86	26.46	164	0.78
581	7.74	34.60	0.89	1.43	27.02	300	11.76	34.81	26.51	161	0.86
702	6.76	34.56	1.28	1.94	27.13	400	10.16	34.74	26.74	140	1.01
823	5.48	34.54	1.76	2.29	27.28	500	8.84	34.66	26.90	126	1.15
943	5.01	34.54	1.73	1.74	27.33	600	7.57	34.59	27.04	113	1.27
1178	4.11	34.54	1.86	1.64	27.43	700	6.77	34.56	27.12	105	1.37
1410	3.22	34.56	1.95	2.33	27.54	800	5.70	34.54	27.25	93	1.47
						1000	4.79	34.53	27.36	84	1.65
						1200	4.03	34.54	27.44	76	1.81

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HUGH M. SMITH; July 23, 1958; 0652 GCT; 23°56'N, 158°33'W; wind, 060°, 18 kt; weather, missing; sea, moderate; wire angle, <03°.											4
0	25.23	35.10	4.66	0.58	23.37	0	25.23	35.10	23.37	452	0.00
20	25.22	35.12	4.72	0.43	23.39	10	25.22	35.11	23.38	451	0.05
40	25.14	35.10	4.64	0.47	23.40	20	25.22	35.12	23.39	451	0.09
70	21.40	35.08	4.91	0.49	24.46	30	25.20	35.11	23.38	451	0.14
90	20.44	35.10	4.66	0.58	24.74	50	23.98	35.08	23.73	418	0.22
305	12.04	34.33	4.57	1.23	26.08	75	21.10	35.08	24.55	340	0.32
511	6.95	34.04	3.34	2.38	26.69	100	19.98	35.10	24.86	310	0.40
615	5.45	-	1.73	3.19		125	18.85	35.02	25.09	288	0.48
820	4.43	-	0.89	3.69		150	17.76	34.91	25.28	270	0.55
1018	3.90	34.50	1.20	3.46	27.42	200	15.73	34.70	25.60	240	0.68
1222	3.33	34.55	1.47	3.77a)	27.52	250	13.87	34.50	25.85	216	0.79
						300	12.20	34.35	26.07	195	0.90
						400	9.34	34.06	26.35	169	1.09
						500	7.15	34.02	26.65	140	1.25
						600	5.62	34.13	26.93	113	1.39
						700	4.84	34.28	27.14	93	1.50
						800	4.46	34.39	27.27	81	1.59
						1000	3.94	34.54	27.45	64	1.75
						1200	3.39	34.54	27.50	59	1.89
HUGH M. SMITH; July 23, 1958; 1847 GCT; 25°33'N, 158°34'W; wind, 050°, 10 kt; weather, sky obscured; sea, slight; wire angle, 00°.											5
0	24.06	35.35	4.55	0.30	23.91	0	24.06	35.35	23.91	401	0.00
14	24.04	35.03	4.70	0.25	23.67	10	24.05	35.12	23.74	417	0.04
34	23.97	35.37	4.99	0.35	23.95	20	24.07	35.10	23.72	419	0.08
62	22.48	35.25	4.67	0.48	24.29	30	24.02	35.27	23.86	405	0.12
72	21.92	35.27	4.59	0.35	24.46	50	23.23	35.32	24.13	380	0.20
198	17.96	34.95	4.66	0.63	25.26	75	21.80	35.27	24.50	344	0.29
298	14.37	34.51	1.02	2.29	25.75	100	20.82	35.21	24.72	323	0.38
402	11.05	34.25	0.81	2.92	26.20	125	19.94	35.14	24.90	306	0.46
501	8.46	34.11	1.94	2.08	26.53	150	19.17	35.06	25.04	293	0.53
601	6.24	34.06	3.41	1.24	26.80	200	17.89	34.94	25.27	271	0.68
808	4.50	34.26	4.40	0.66	27.17	250	16.09	34.72	25.53	246	0.81
1006	3.76	34.43	4.16	0.43	27.38	300	14.30	34.50	25.76	225	0.93
1208	3.29	34.51	1.29	3.71	27.49	400	11.11	34.25	26.19	183	1.14
						500	8.48	34.11	26.52	152	1.32
						600	6.26	34.06	26.80	126	1.47
						700	5.11	34.13	27.00	107	1.59
						800	4.52	34.24	27.15	93	1.70
						1000	3.77	34.42	27.37	72	1.88
						1200	3.31	34.50	27.48	61	2.03

a) Alternate value, 3.19 µg at/L; duplicate values did not agree within 0.1 µg at/L, the tolerance for phosphate values.

HBL

HMS-46

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
7	HUGH M. SMITH; July 24, 1958; 0613 GCT; 27°08'N, 158°38'W; wind, 070°, 14 kt; weather, partly cloudy; sea, moderate; wire angle, 01°.										
0	23.74	35.42	4.61	0.40	24.06	0	23.74	35.42	24.06	387	0.00
30	23.58	35.39	4.78	0.20	24.08	10	23.69	35.41	24.06	386	0.04
55	19.98	35.12	5.42	0.09	24.88	20	23.63	35.40	24.07	386	0.08
104	17.13	34.86	5.61	0.24	25.39	30	23.58	35.39	24.08	385	0.12
154	15.75	34.72	4.82	0.38	25.61	50	20.77	35.17	24.71	326	0.19
203	14.38	34.53	4.84	0.48	25.76	75	18.39	34.98	25.18	282	0.26
305	11.34	34.29	4.82	0.98	26.18	100	17.23	34.87	25.38	264	0.33
414	9.29	34.17	4.56	1.51	26.44	125	16.46	34.79	25.50	253	0.40
516	7.10	34.04	3.42	2.22	26.67	150	15.83	34.73	25.60	244	0.46
624	5.60	34.03	2.25	2.93	26.86	200	14.46	34.54	25.75	231	0.58
833	4.21	34.30	0.61	3.59	27.23	250	12.93	34.39	25.96	212	0.69
1033	3.66	34.44	0.67	3.70	27.40	300	11.48	34.29	26.16	193	0.79
1236	3.16	34.55	1.12	2.65a)	27.53	400	9.53	34.18	26.41	170	0.97
						500	7.43	34.05	26.64	149	1.13
						600	5.87	34.02	26.82	131	1.27
						700	4.93	34.11	27.00	114	1.39
						800	4.34	34.24	27.18	98	1.50
						1000	3.72	34.42	27.38	79	1.68
						1200	3.25	34.53	27.51	67	1.82
8	HUGH M. SMITH; July 24, 1958; 1831 GCT; 28°45'N, 158°44'W; wind, 100°, 10 kt; weather, sky obscured; sea, slight; wire angle, 20°.										
0	23.36	35.38	4.66	0.30	24.14	0	23.36	35.38	24.14	379	0.00
19	23.34	35.40	4.66	0.12	24.16	10	23.35	35.39	24.15	378	0.04
41	20.30	35.14	5.24	0.12	24.81	20	23.22	35.39	24.19	375	0.08
69	18.77	35.05	5.22	Trace	25.14	30	21.92	35.27	24.47	348	0.11
134	17.36	34.93	4.96	0.17	25.39	50	19.64	35.09	24.95	303	0.18
203	15.41	34.64	4.87	0.35	25.62	75	18.59	35.03	25.17	283	0.25
282	12.65	34.37	4.63	0.62	25.99	100	17.94	34.99	25.30	271	0.32
381	10.68	34.21	4.66	0.70	26.24	125	17.48	34.94	25.38	265	0.39
475	8.65	34.10	4.14	0.96	26.49	150	16.95	34.86	25.44	259	0.45
575	6.43	34.01	3.09	2.05	26.74	200	15.50	34.65	25.61	244	0.58
770	4.36	34.09	0.91	3.10	27.05	250	13.74	34.46	25.85	223	0.69
959	3.68	34.31	0.48	3.45	27.29	300	12.24	34.33	26.04	205	0.80
1152	3.26	34.39b)	0.81	3.47c)	27.40	400	10.28	34.18	26.29	183	1.00
						500	8.06	34.07	26.56	157	1.16
						600	6.04	34.00	26.78	135	1.31
						700	4.85	34.03	26.95	119	1.44
						800	4.20	34.12	27.09	105	1.55
						1000	3.59	34.32	27.31	85	1.74

a) Alternate value, 3.35 μg at/L.
b) Sample bottle only three-quarters full.
c) Alternate value, 3.11 μg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HUGH M. SMITH; July 25, 1958; 0642 GCT; 30°36'N, 158°56'W; wind, 120°, 10 kt; weather, partly cloudy; sea, slight; wire angle, 04°.											10
0	24.10	35.43	4.68	0.66	23.96	0	24.10	35.43	23.96	396	0.00
20	23.88	35.38	4.68	0.11	23.98	10	23.99	35.40	23.97	395	0.04
39	18.56	34.76	5.46	0.13	24.97	20	23.88	35.38	23.98	393	0.08
94	15.36	34.60	5.43	0.17	25.60	30	21.26	35.07	24.50	345	0.12
150	13.75	34.46	4.94	0.34	25.84	50	17.13	34.70	25.27	271	0.18
204	12.54	34.34	5.06	0.45	25.99	75	16.10	34.64	25.47	252	0.24
307	10.85	34.26	4.74	0.80	26.25	100	15.14	34.58	25.64	236	0.31
414	8.96	34.22	4.49	1.20	26.53	125	14.34	34.52	25.76	224	0.36
514	7.20	34.06	3.72	1.47	26.67	150	13.75	34.46	25.84	217	0.42
621	5.43	34.05	2.47	2.48	26.89	200	12.62	34.34	25.98	204	0.53
828	4.02	34.23	0.67	2.68	27.19	250	11.74	34.29	26.11	191	0.63
1028	3.52	34.41	0.39	3.30	27.39	300	10.95	34.26	26.23	180	0.72
1227	3.14	34.49	0.77	3.28	27.49	400	9.21	34.22	26.49	155	0.90
						500	7.44	34.08	26.65	139	1.05
						600	5.74	34.04	26.85	121	1.19
						700	4.68	34.10	27.02	105	1.31
						800	4.11	34.19	27.15	92	1.42
						1000	3.56	34.38	27.36	73	1.60
						1200	3.19	34.47	27.47	62	1.75
HUGH M. SMITH; July 25, 1958; 1940 GCT; 32°25'N, 158°50'W; wind, 190°, 13 kt; weather, partly cloudy; sea, slight; wire angle, <03°.											11
0	23.60	34.62	4.81	0.12	23.49	0	23.60	34.62	23.49	440	0.00
19	23.26	35.05	4.82	0.32	23.92	10	23.42	34.84	23.71	419	0.04
39	17.57	34.75	5.49	0.26	25.20	20	23.01	35.04	23.98	394	0.08
93	14.98	34.54	5.32	0.12	25.64	30	20.31	34.92	24.64	331	0.12
138	13.92	34.45	5.10	0.37	25.80	50	16.23	34.66	25.45	254	0.18
203	12.52	34.34	4.96	0.64	26.00	75	15.40	34.55	25.56	244	0.24
303	10.84	34.27	4.80	1.00	26.26	100	14.78	34.52	25.67	233	0.30
410	9.16	34.17	4.65	1.24	26.46	125	14.17	34.47	25.76	224	0.36
511	7.16	34.01	3.80	1.40	26.64	150	13.65	34.42	25.83	218	0.42
610	5.50	34.02	2.61	2.42	26.86	200	12.58	34.34	25.98	203	0.52
820	4.02	34.22	0.67	3.40	27.19	250	11.69	34.30	26.12	190	0.62
1019	3.48	34.38	0.29	2.82	27.37	300	10.89	34.27	26.25	178	0.72
1219	3.10	34.51	0.52	3.48a)	27.51	400	9.32	34.18	26.45	159	0.90
						500	7.38	34.02	26.62	143	1.05
						600	5.65	34.01	26.84	122	1.19
						700	4.64	34.09	27.02	105	1.32
						800	4.08	34.19	27.16	92	1.42
						1000	3.51	34.36	27.35	74	1.60
						1200	3.14	34.49	27.49	61	1.75

a) Alternate value, 3.00 µg at/L.

HBL

HMS-46

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
13	HUGH M. SMITH; July 26, 1958; 0726 GCT; 34°01'N, 158°54'W; wind, 180°, 20 kt; weather, missing; sea, moderate; wire angle, 21°.										
0	23.56	34.52	4.83	0.32	23.43	0	23.56	34.52	23.43	446	0.00
14	23.55	34.52	5.70	0.20	23.43	10	23.55	34.52	23.43	446	0.04
27	18.80	34.28	5.66	Trace	24.54	20	21.54	34.41	23.92	400	0.09
54	14.32	34.43	6.71	0.42	25.70	30	18.04	34.27	24.72	323	0.12
90	13.32	34.37	5.34	0.59	25.86	50	14.65	34.43	25.63	237	0.18
186	12.00	34.34	5.08	0.59	26.10	75	13.60	34.38	25.81	220	0.24
278	10.80	34.26	4.87	0.83	26.26	100	13.14	34.36	25.89	212	0.29
375	9.06	34.16	4.53	0.83	26.47	125	12.72	34.35	25.96	205	0.34
469	7.32	34.03	4.24	1.32	26.63	150	12.38	34.34	26.02	199	0.40
567	5.65	34.03	3.13	1.82	26.85	200	11.83	34.33	26.12	190	0.50
759	4.14	34.19	1.11	2.92	27.15	250	11.19	34.28	26.20	183	0.59
948	3.46	34.33	0.40	3.09	27.33	300	10.43	34.24	26.30	173	0.68
1140	3.06	34.46	0.33	3.17a)	27.47	400	8.59	34.12	26.51	153	0.85
						500	6.75	34.02	26.70	135	1.00
						600	5.28	34.05	26.91	115	1.14
						700	4.44	34.13	27.07	100	1.25
						800	3.95	34.22	27.19	88	1.35
						1000	3.35	34.36	27.36	72	1.53
14	HUGH M. SMITH; July 26, 1958; 1939 GCT; 35°44'N, 158°58'W; wind, 020°, 11 kt; weather, cloudy; sea, rough; wire angle, 06°.										
0	22.78	34.32	4.99	Trace	23.50	0	22.78	34.32	23.50	439	0.00
9	22.77	34.33	4.96	Trace	23.51	10	22.51	34.32	23.58	432	0.04
24	17.90	34.21	5.87	Trace	24.71	20	19.41	34.24	24.36	358	0.08
54	13.46	34.28	6.47	0.32	25.76	30	16.62	34.20	25.01	296	0.12
107	12.28	34.30	5.53	0.70	26.01	50	13.77	34.26	25.68	232	0.17
202	11.36	34.28	5.53	0.70	26.17	75	12.90	34.29	25.88	213	0.22
301	10.04	34.18	4.90	0.70	26.33	100	12.38	34.30	25.99	202	0.28
408	8.10	34.13	4.54	1.16	26.60	125	12.06	34.30	26.05	196	0.33
512	6.20	34.00	3.39	2.00	26.76	150	11.79	34.30	26.10	192	0.38
619	4.87	34.05	2.18	2.20	26.96	200	11.37	34.28	26.17	186	0.47
828	3.87	34.21	0.90	2.52	27.19	250	10.77	34.23	26.24	179	0.57
1028	3.26	34.36	0.34	3.25	27.37	300	10.06	34.18	26.32	171	0.66
1227	2.89	34.46	0.39	3.09	27.49	400	8.25	34.13	26.57	147	0.82
						500	6.40	34.01	26.74	131	0.97
						600	5.06	34.03	26.92	114	1.10
						700	4.34	34.10	27.06	101	1.21
						800	3.93	34.18	27.16	91	1.32
						1000	3.33	34.34	27.35	74	1.49
						1200	2.94	34.44	27.47	63	1.65

a) Alternate value, 3.00 μg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

HUGH M. SMITH; July 27, 1958; 0810 GCT; 37°25'N, 159°09'W; wind, 210°, 8 kt; weather, cloudy; sea, slight; wire angle, 08°. 16

0	21.80	34.22	5.13	Trace	23.70	0	21.80	34.22	23.70	420	0.00
9	21.72	34.20	5.13	Trace	23.71	10	21.37	34.18	23.79	412	0.04
19	17.52	34.05	5.97	0.20	24.68	20	17.24	34.04	24.74	321	0.08
47	12.98	34.09	6.47	0.20	25.71	30	14.93	34.02	25.25	273	0.11
95	11.90	34.17	-	-	25.98	50	12.78	34.09	25.75	225	0.16
197	11.39	34.24	5.52	0.54	26.13	75	12.15	34.13	25.90	211	0.21
295	10.41	34.21	5.59	0.91	26.28	100	11.85	34.17	25.99	202	0.27
398	9.06	34.13	4.85	1.16	26.45	125	11.65	34.20	26.05	196	0.32
496	6.92	34.00	4.10	1.48	26.66	150	11.51	34.22	26.10	193	0.37
601	5.28	34.01	2.95	1.91	26.88	200	11.37	34.24	26.14	189	0.46
803	4.06	34.18	1.18	2.82	27.15	250	10.91	34.23	26.21	181	0.56
999	3.40	34.29	0.49	3.00	27.30	300	10.36	34.20	26.29	174	0.65
1196	2.94	34.40	0.34	3.09	27.43	400	9.02	34.12	26.45	159	0.82
						500	6.85	33.99	26.67	138	0.98
						600	5.29	34.00	26.87	119	1.12
						700	4.49	34.08	27.03	104	1.23
						800	4.07	34.17	27.14	93	1.34
						1000	3.40	34.29	27.30	78	1.52

HUGH M. SMITH; July 27, 1958; 1936 GCT; 38°35'N, 159°13'W; wind, 250°, 14 kt; weather, overcast; sea, slight; wire angle, 00°. 17

0	20.94	34.14	5.06	Trace	23.88	0	20.94	34.14	23.88	404	0.00
10	20.93	34.14	5.01	Trace	23.88	10	20.93	34.14	23.88	403	0.04
20	15.55	34.15	6.37	Trace	25.22	20	15.55	34.15	25.21	276	0.07
50	12.44	34.20	5.66	0.26	25.90	30	14.40	34.16	25.47	252	0.10
100	10.98	34.20	5.46	0.59	26.18	50	12.44	34.20	25.90	211	0.15
206	10.36	34.17	5.63	0.50	26.26	75	11.37	34.20	26.11	192	0.20
308	9.71	34.18	4.91	1.00	26.38	100	10.98	34.20	26.18	185	0.25
415	7.69	34.07	4.31	1.64	26.61	125	10.68	34.19	26.22	180	0.29
518	5.97	33.98	3.54	1.64	26.77	150	10.48	34.18	26.25	178	0.34
627	4.81	34.03	2.30	2.20	26.95	200	10.35	34.17	26.26	176	0.43
836	3.76	34.24	0.85	3.00	27.23	250	10.16	34.17	26.30	173	0.52
1038	3.20	34.33	0.41	3.00	27.35	300	9.78	34.18	26.37	167	0.61
1241	2.81	34.42	0.32	2.63a)	27.46	400	8.01	34.08	26.57	147	0.77
						500	6.24	33.99	26.75	131	0.91
						600	5.05	34.00	26.90	116	1.04
						700	4.33	34.10	27.06	101	1.16
						800	3.87	34.20	27.19	89	1.26
						1000	3.28	34.31	27.33	75	1.44
						1200	2.89	34.40	27.44	65	1.59

a) Alternate value, 4.00 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
19	HUGH M. SMITH; July 28, 1958; 0735 GCT; 39°40'N, 159°15'W; wind, 300°, 14 kt; weather, missing; sea, missing; wire angle, 00°.										
0	19.18	33.96	5.36	0.32	24.20	0	19.18	33.96	24.20	373	0.00
10	19.20	33.98	5.33	0.37	24.21	10	19.20	33.98	24.21	372	0.04
20	15.32	34.10	6.58	0.37	25.23	20	15.32	34.10	25.23	276	0.07
49	12.33	34.13	5.69	0.54	25.87	30	13.51	34.13	25.64	237	0.10
97	10.59	34.20	5.62	0.64	26.25	50	12.27	34.13	25.88	214	0.14
199	9.96	34.17	5.75	0.70	26.33	75	11.08	34.17	26.13	190	0.19
258	9.72	34.08u	5.74	0.91	26.30	100	10.54	34.20	26.26	180	0.24
297	9.72	34.08	-	-	26.30	125	10.20	34.21	26.32	174	0.28
354	8.14	34.04	4.34	1.73	26.52	150	9.99	34.21	26.36	171	0.32
399	8.14	34.04	-	-	26.52	200	9.95	34.16	26.33	174	0.41
499	5.96	33.94	3.64	2.10	26.74	250	9.74	34.09	26.31	178	0.50
604	4.67	34.03	2.35	2.92	26.97	300	9.64	34.07	26.31	178	0.59
813	3.85	34.21	1.01	2.92	27.20	400	8.12	34.03	26.52	159	0.76
1015	3.24	34.32	0.50	3.00	27.34	500	5.94	33.94	26.74	137	0.90
1217	2.84	34.42	0.34	3.09	27.46	600	4.70	34.02	26.96	117	1.03
						700	4.14	34.11	27.09	104	1.14
						800	3.86	34.20	27.19	96	1.24
						1000	3.28	34.31	27.33	82	1.42
						1200	2.87	34.41	27.45	72	1.57
22	HUGH M. SMITH; July 29, 1958; 1844 GCT; 40°48'N, 159°39'W; wind, 010°, 8 kt; weather, drizzle; sea, slight; wire angle, 01°.										
0	17.26	34.00	5.68	0.12	24.71	0	17.26	34.00	24.71	325	0.00
10	17.02	34.00	5.75	0.20	24.76	10	17.02	34.00	24.76	320	0.03
21	14.06	34.19	6.55	0.12	25.57	20	14.36	34.17	25.49	251	0.06
51	12.20	34.25	5.83	0.32	25.99	30	12.98	34.24	25.83	218	0.08
102	11.18	34.32	5.57	0.54	26.23	50	12.18	34.25	25.99	203	0.13
209	9.94	34.20	5.61	0.46	26.36	75	11.53	34.29	26.15	190	0.18
311	8.83	34.10	4.80	0.91	26.46	100	11.19	34.31	26.23	182	0.22
418	6.76	34.02	4.16	1.73	26.70	125	10.86	34.30	26.28	178	0.27
520	5.29	34.00	3.19	1.73	26.87	150	10.54	34.28	26.32	174	0.31
626	4.52	34.06	1.97	2.30	27.01	200	10.02	34.21	26.36	172	0.40
833	3.74	34.25	0.94	3.00	27.24	250	9.54	34.15	26.39	169	0.48
1033	3.22	34.35	0.52	3.09	27.37	300	8.97	34.11	26.45	165	0.57
1237	2.80	34.43	0.40	3.40a)	27.47	400	7.12	34.03	26.66	145	0.72
						500	5.53	33.99	26.84	128	0.86
						600	4.66	34.04	26.98	115	0.98
						700	4.17	34.12	27.10	104	1.09
						800	3.82	34.21	27.21	94	1.19
						1000	3.29	34.33	27.35	80	1.36
						1200	2.88	34.41	27.45	71	1.51

a) Alternate value, 1.91 μg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HUGH M. SMITH; July 30, 1958; 0705 GCT; 41°20'N, 159°56'W; wind, 350°, 8 kt; weather, cloudy; sea, slight; wire angle, 00°.											26
0	16.12	33.80	5.86	0.42	24.82	0	16.12	33.80	24.82	314	0.00
9	16.08	33.85	5.91	0.42	24.87	10	16.03	33.84	24.87	309	0.03
20	15.20	33.79	6.02	0.42	25.02	20	15.20	33.79	25.02	295	0.06
48	11.11	33.98	6.10	0.54	25.98	30	13.76	33.83	25.35	263	0.09
99	9.73	34.10	5.94	0.59	26.32	50	10.98	33.98	26.01	201	0.14
203	8.92	33.99	6.00	0.83	26.36	75	10.25	34.06	26.20	183	0.18
305	7.72	34.07	4.38	1.48	26.61	100	9.72	34.10	26.32	171	0.23
412	5.90	33.98	3.64	2.10	26.78	125	9.42	34.08	26.35	168	0.27
515	4.84	34.00	2.64	2.20	26.92	150	9.19	34.06	26.37	166	0.31
621	4.29	34.12	1.74	2.30	27.08	200	8.93	33.99	26.36	167	0.40
827	3.64	34.27	0.92	2.82	27.26	250	8.42	34.02	26.46	158	0.48
1028	3.12	34.37	0.47	3.00	27.39	300	7.79	34.06	26.59	146	0.56
1227	2.78	34.44	0.52	2.82	27.48	400	6.10	33.99	26.76	129	0.70
						500	4.96	33.99	26.90	116	0.83
						600	4.37	34.09	27.05	102	0.95
						700	4.00	34.18	27.16	92	1.05
						800	3.71	34.25	27.24	84	1.14
						1000	3.18	34.35	27.37	71	1.31
						1200	2.83	34.43	27.47	62	1.46
HUGH M. SMITH; July 31, 1958; 0705 GCT; 41°46'N, 159°24'W; wind, 310°, 6 kt; weather, sky obscured; sea, slight; wire angle, 00°.											29
0	14.62	33.47	5.82	0.54	24.90	0	14.62	33.47	24.90	307	0.00
9	14.76u	33.47	5.74	0.46	24.87	10	14.74	33.47	24.87	309	0.03
20	14.30	33.59	5.93	0.54	25.06	20	14.30	33.59	25.06	291	0.06
49	10.54	33.84	6.19	0.64	25.97	30	13.10	33.68	25.37	261	0.09
99	8.90	33.95	5.91	0.91	26.33	50	10.47	33.84	25.99	203	0.14
203	8.66	33.95	5.85	0.91	26.37	75	9.24	33.92	26.26	177	0.18
304	7.44	34.02	4.25	1.64	26.61	100	8.89	33.95	26.33	170	0.23
412	5.60	33.95	3.65	1.82	26.79	125	8.88	33.96	26.34	169	0.27
515	4.42	34.01	2.48	2.82	26.98	150	8.86	33.96	26.35	169	0.31
625	4.20	34.10	1.63	2.92	27.07	200	8.64	33.95	26.37	166	0.40
835	3.56	34.25	0.73	3.17	27.26	250	8.18	33.98	26.47	157	0.48
1033	3.12	34.35	0.54	3.40	27.38	300	7.50	34.01	26.59	146	0.56
1213	2.78	34.43	0.33	3.35	27.47	400	5.80	33.95	26.77	128	0.70
						500	4.55	33.99	26.95	112	0.83
						600	4.21	34.07	27.05	102	0.94
						700	3.98	34.15	27.13	94	1.04
						800	3.67	34.22	27.22	86	1.14
						1000	3.19	34.33	27.36	73	1.31
						1200	2.80	34.42	27.46	63	1.46

HBL

HMS-46

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
33	HUGH M. SMITH; August 1, 1958; 0654 GCT; 41°09'N, 158°24'W; wind, 360°, 7 kt; weather, overcast; sea, slight; wire angle, 04°.										
0	16.38	33.64	5.79	0.42	24.64	0	16.38	33.64	24.64	331	0.00
10	-	33.66	5.73	0.26		10	16.41	33.66	24.64	331	0.03
20	14.28	34.01	6.60	0.32	25.38	20	14.28	34.01	25.38	260	0.06
50	11.22	34.10	5.87	0.54	26.06	30	12.87	34.84	26.31	172	0.08
100	10.50	34.27	5.60	0.76	26.32	50	11.22	34.10	26.06	196	0.12
203	9.21	34.11	5.68	0.50	26.41	75	11.00	34.19	26.16	186	0.17
305	8.02	34.11	4.37	1.08	26.59	100	10.50	34.27	26.32	172	0.21
412	6.01	34.01	3.67	1.91	26.79	125	10.17	34.25	26.36	168	0.26
514	4.84	33.99	2.74	2.42	26.92	150	9.85	34.22	26.39	165	0.30
623	4.35	34.10	1.82	2.00	27.06	200	9.25	34.11	26.40	163	0.38
831	3.58	34.25	0.73	2.82	27.25	250	8.70	34.10	26.48	156	0.47
1031	3.08	34.36	0.51	2.63	27.39	300	8.09	34.10	26.57	147	0.54
1229	2.70	34.44	0.42	3.32	27.49	400	6.23	34.02	26.77	128	0.69
						500	4.96	33.98	26.89	117	0.81
						600	4.42	34.07	27.02	104	0.93
						700	4.04	34.16	27.14	94	1.04
						800	3.68	34.23	27.23	85	1.13
						1000	3.15	34.34	27.37	72	1.30
						1200	2.76	34.42	27.47	63	1.45
37	HUGH M. SMITH; August 2, 1958; 0705 GCT; 42°19'N, 158°22'W; wind, 350°, 8 kt; weather, missing; sea, smooth; wire angle, 07°.										
0	15.36	33.67	5.97	0.54	24.89	0	15.36	33.67	24.89	307	0.00
15	15.29	33.69	5.94	0.42	24.92	10	15.31	33.68	24.91	306	0.03
29	11.05	33.86	6.72	0.54	25.90	20	13.83	33.75	25.28	270	0.06
49	10.24	33.84	6.13	0.64	26.03	30	10.93	33.86	25.92	209	0.08
97	9.05	33.99	5.90	0.64	26.34	50	10.21	33.84	26.03	199	0.12
200	8.64	33.98	5.92	0.12	26.40	75	9.65	33.91	26.18	184	0.17
297	7.08	34.05	4.25	1.32	26.68	100	9.03	33.99	26.34	169	0.22
399	5.39	34.00	3.42	2.52	26.86	125	8.86	34.00	26.38	166	0.26
498	4.58	34.06	2.37	2.92	27.00	150	8.74	34.00	26.40	164	0.30
602	4.19	34.14	1.45	2.92	27.10	200	8.64	33.98	26.40	164	0.38
807	3.55	34.30	1.66a)	2.92	27.30	250	7.91	34.01	26.53	151	0.47
1005	3.08	34.41	0.48	3.25	27.43	300	7.02	34.04	26.68	137	0.54
1205	2.73	34.46	0.45	2.63	27.50	400	5.38	34.00	26.86	120	0.67
						500	4.57	34.06	27.00	107	0.79
						600	4.20	34.13	27.10	98	0.90
						700	3.86	34.21	27.19	88	1.00
						800	3.57	34.29	27.29	79	1.09
						1000	3.09	34.40	27.42	67	1.25
						1200	2.74	34.45	27.49	60	1.39

a) Value uncertain; not used in interpolation.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

40

HUGH M. SMITH; August 3, 1958; 0716 GCT; 43°10'N, 158°47'W; wind, 280°, 13 kt; weather, overcast; sea, moderate; wire angle, 27°.

0	13.56	33.35	6.04	-	25.02	0	13.56	33.35	25.02	294	0.00
13	-	33.30	6.02	0.83		10	13.55	33.31	24.99	297	0.03
26	13.13	33.32	6.22	1.00	25.09	20	13.50	33.29	24.99	298	0.06
43	9.65	33.57	6.49	1.00	25.92	30	12.39	33.37	25.27	271	0.09
87	7.99	33.66	6.27	1.08	26.25	50	9.00	33.61	26.05	197	0.13
178	7.64	33.76	6.08	1.08	26.37	75	7.87	33.67	26.27	176	0.18
265	6.82	33.99	4.24	2.00	26.67	100	7.83	33.67	26.28	175	0.23
356	5.25	33.92	3.54	3.09	26.81	125	7.62	33.70	26.33	170	0.27
445	4.50	33.94	2.69	3.40	26.91	150	7.55	33.72	26.36	168	0.31
537	4.22	34.04	1.85	3.56	27.02	200	7.49	33.82	26.44	160	0.40
718	3.78	34.21	0.95	3.72	27.20	250	7.00	33.95	26.61	143	0.47
900	3.30	34.30	0.77	4.10	27.32	300	6.21	33.97	26.73	132	0.54
1091	2.92	34.41	0.54	3.90	27.44	400	4.80	33.92	26.86	120	0.67
						500	4.30	33.99	26.97	109	0.79
						600	4.06	34.10	27.09	98	0.90
						700	3.82	34.19	27.18	89	1.00
						800	3.56	34.25	27.26	82	1.09
						1000	3.10	34.35	27.38	71	1.26

41

HUGH M. SMITH; August 4, 1958; 0553 GCT; 44°16'N, 158°57'W; wind, 250°, 25 kt; weather, moderate rain; sea, very rough; wire angle, 21°.

0	12.62	33.25	6.09	0.54	25.13	0	12.62	33.25	25.13	284	0.00
19	12.64	33.27	6.63	0.64	25.14	10	12.63	33.26	25.14	284	0.03
34	9.23	33.39	6.60	0.91	25.84	20	12.44	33.27	25.19	279	0.06
77	7.36	33.53	6.72	1.24	26.23	30	10.22	33.35	25.65	235	0.08
131	7.15	33.63	6.27	1.40	26.34	50	7.76	33.46	26.12	191	0.12
214	7.33	33.98	4.71	1.73	26.59	75	7.30	33.52	26.24	180	0.17
319	5.43	33.91	-	2.52	26.78	100	7.11	33.57	26.30	174	0.22
430	4.43	33.94	2.82	2.73	26.92	125	7.11	33.61	26.34	171	0.26
536	4.11	34.06	1.72	3.40	27.05	150	7.23	33.71	26.40	166	0.30
642	3.89	34.17	1.32	3.40	27.16	200	7.33	33.92	26.55	153	0.38
864	3.31	34.30	0.66	3.40	27.32	250	6.76	33.98	26.67	141	0.45
1055	2.92	34.40	0.50	3.56	27.44	300	5.83	33.94	26.76	133	0.52
1251	2.65	34.45	0.56	3.48	27.50	400	4.62	33.92	26.89	121	0.65
						500	4.18	34.01	27.01	110	0.77
						600	3.97	34.12	27.12	100	0.87
						700	3.74	34.21	27.21	93	0.97
						800	3.48	34.27	27.28	86	1.06
						1000	3.02	34.37	27.41	75	1.22
						1200	2.72	34.43	27.48	68	1.36

42

HUGH M. SMITH; August 4, 1958; 1944 GCT; 43°49'N, 159°55'W; wind, 250°, 22 kt; weather, sky obscured; sea, very rough; wire angle, 06°.

0	12.12	33.20	6.14	0.83	25.19	0	12.12	33.20	25.19	279	0.00
20	12.15	33.19	6.11	0.70	25.18	10	12.13	33.19	25.18	279	0.03
34	10.11	33.29	6.50	0.70	25.62	20	12.15	33.19	25.18	280	0.06
78	6.82	33.40	6.54	1.00	26.21	30	10.75	33.25	25.48	251	0.08
133	6.44	33.50	6.36	1.00	26.33	50	8.49	33.34	25.92	209	0.13
217	6.78	33.94	4.29	1.48	26.64	75	6.93	33.39	26.18	184	0.18
328	5.23	33.92	3.53	2.20	26.82	100	6.60	33.43	26.26	177	0.22
447	4.28	34.02	2.37	2.63	27.00	125	6.48	33.48	26.31	172	0.27
561	3.98	34.15	1.46	2.42	27.13	150	6.52	33.59	26.39	164	0.31
675	3.78	34.21	0.96	3.00	27.20	200	7.10	33.85	26.52	152	0.39
897	3.20	34.34	0.69	3.17	27.36	250	6.40	33.96	26.70	135	0.46
1113	2.80	34.44	0.57	3.17	27.48	300	5.70	33.95	26.78	127	0.53
1313	2.53	34.55	0.61	3.00	27.59	400	4.57	33.97	26.93	113	0.66
						500	4.10	34.08	27.07	100	0.77
						600	3.91	34.17	27.16	92	0.87
						700	3.72	34.22	27.22	86	0.96
						800	3.46	34.28	27.29	79	1.05
						1000	2.99	34.38	27.41	67	1.21
						1200	2.68	34.48	27.52	57	1.35

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
43	HUGH M. SMITH; August 5, 1958; 0739 GCT; 45°00'N, 159°23'W; wind, 290°, 17 kt; weather, slight drizzle; sea, very rough; wire angle, 25°.										
0	11.87	33.26	6.19	0.50	25.28	0	11.87	33.26	25.28	270	0.00
18	11.79u	33.28	6.14	0.42	25.31	10	11.83	33.27	25.30	268	0.03
31	11.46	33.36	6.27	0.42	25.44	20	11.76	33.29	25.33	265	0.05
72	7.62	33.51	6.42	1.00	26.18	30	11.50	33.35	25.42	257	0.08
121	6.80	33.56	6.28	0.70a)	26.33	50	9.77	33.44	25.79	221	0.13
197	6.90	34.05	4.44	1.64	26.71	75	7.50	33.51	26.20	183	0.18
297	5.13	33.97	3.65	1.64	26.87	100	6.86	33.53	26.30	173	0.22
401	4.42	34.01	2.61	2.20	26.98	125	6.80	33.58	26.35	168	0.27
503	4.22	34.11	1.73	2.63	27.08	150	7.00	33.74	26.45	159	0.31
608	3.93	34.20	1.18	3.00	27.18	200	6.85	34.05	26.71	134	0.38
818	3.40	34.32	0.68	3.00	27.33	250	6.03	34.05	26.82	124	0.45
1028	2.94	34.43	0.63	3.17	27.46	300	5.10	33.97	26.87	119	0.51
1226	2.64	34.45	0.54	3.09	27.50	400	4.42	34.00	26.97	110	0.63
						500	4.22	34.10	27.07	100	0.74
						600	3.95	34.19	27.17	91	0.84
						700	3.69	34.25	27.24	84	0.93
						800	3.44	34.31	27.32	77	1.02
						1000	3.00	34.41	27.44	65	1.17
						1200	2.68	34.44	27.49	60	1.31
44	HUGH M. SMITH; August 5, 1958; 1734 GCT; 46°06'N, 159°40'W; wind, 290°, 19 kt; weather, overcast; sea, moderate; wire angle, 23°.										
0	10.68	33.07	6.25	0.83	25.35	0	10.68	33.07	25.35	263	0.00
13	10.70	33.08	6.22	0.70	25.36	10	10.70	33.07	25.35	264	0.03
32	10.68	33.11	6.26	0.59	25.38	20	10.70	33.07	25.35	264	0.05
45	7.90	33.33	6.77	0.59	26.00	30	10.80	33.09	25.35	264	0.08
87	6.57	33.43	6.58	0.76	26.26	50	7.41	33.36	26.09	193	0.12
173	6.38	33.63	6.04a)	0.50	26.44	75	6.70	33.42	26.24	179	0.17
276	5.33	33.92	3.94	1.64	26.80	100	6.45	33.45	26.29	174	0.22
373	4.34	34.00	2.80	2.41	26.98	125	6.10	33.51	26.39	165	0.26
467	4.03	34.05	0.22b)	2.82	27.05	150	6.15	33.57	26.43	161	0.30
569	3.84	34.13	1.32	2.00	27.13	200	6.35	33.71	26.51	153	0.38
772	3.45	34.32	0.81	2.82	27.32	250	5.80	33.85	26.69	136	0.45
952	3.04	34.40	0.66	3.32	27.42	300	5.05	33.95	26.86	120	0.52
1141	2.74	34.45	0.72	3.17c)	27.49	400	4.21	34.01	27.00	107	0.64
						500	3.96	34.07	27.07	100	0.74
						600	3.78	34.16	27.16	91	0.84
						700	3.59	34.25	27.25	83	0.93
						800	3.38	34.33	27.34	75	1.02
						1000	2.96	34.41	27.44	65	1.17

a) Value uncertain; used in interpolation.
b) Value uncertain; not used in interpolation.
c) Alternate value, 2.63 µg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

45

HUGH M. SMITH; August 6, 1958; 0140 GCT; 47°04'N, 159°44'W; wind, 300°, 12 kt; weather, overcast; sea, moderate; wire angle, 23°.

0	10.40	32.99	6.39	1.48	25.34	0	10.40	32.99	25.34	265	0.00
13	10.36	32.98	6.40	1.00	25.34	10	10.37	32.98	25.33	265	0.03
31	10.30	33.03	6.38	0.83	25.39	20	10.35	32.99	25.35	264	0.05
44	6.91	33.09	6.94	1.48	25.95	30	10.37	33.02	25.37	262	0.08
85	5.41	33.19	6.75	1.48	26.22	50	6.22	33.10	26.05	197	0.13
170	5.38	33.80	4.51	1.82	26.70	75	5.50	33.16	26.18	184	0.17
273	3.94	33.86	3.04	2.82	26.91	100	5.29	33.29	26.31	172	0.22
368	3.72	34.00	2.03	2.63	27.04	125	5.20	33.47	26.46	158	0.26
460	3.78	34.08	1.37	2.82	27.10	150	5.60	33.65	26.56	149	0.30
557	3.70	34.20	1.00	3.32	27.20	200	4.98	33.85	26.79	127	0.37
748	3.32	34.33	0.72	3.00	27.34	250	4.27	33.87	26.88	118	0.43
936	2.93	34.38	0.63	3.17	27.42	300	3.81	33.89	26.95	112	0.49
1132	2.66	34.42	0.64	3.32	27.47	400	3.73	34.02	27.06	101	0.60
						500	3.76	34.12	27.13	94	0.70
						600	3.63	34.23	27.23	85	0.79
						700	3.43	34.30	27.31	77	0.88
						800	3.21	34.34	27.36	72	0.96
						1000	2.84	34.39	27.43	65	1.11

46

HUGH M. SMITH; August 6, 1958; 0956 GCT; 48°04'N, 159°42'W; wind, 280°, 13 kt; weather, overcast; sea, slight; wire angle, 12°.

0	9.57	32.94	6.41	1.16	25.44	0	9.57	32.94	25.44	255	0.00
19	9.54	32.93	6.45	1.00	25.43	10	9.55	32.93	25.44	255	0.03
34	7.24	33.19	6.92	1.24	25.98	20	9.40	32.94	25.47	252	0.05
48	6.42	33.20	6.89	1.16	26.10	30	7.88	33.12	25.84	217	0.07
91	5.63	33.22	6.65	1.00	26.21	50	6.35	33.19	26.11	192	0.12
183	4.51	33.84	3.74	2.42	26.83	75	5.76	33.20	26.19	185	0.16
295	3.84	33.97	2.20	3.09	27.01	100	5.49	33.27	26.27	177	0.21
398	3.76	34.07	1.40	3.40	27.09	125	5.14	33.43	26.44	161	0.25
497	3.68	34.16	1.01	2.42	27.17	150	4.84	33.59	26.61	146	0.29
601	3.52	34.26	0.79	3.17	27.27	200	4.36	33.88	26.88	120	0.35
804	3.12	34.35	0.65	3.17	27.38	250	4.03	33.96	26.98	111	0.41
999	2.76	34.44	0.65	3.32	27.48	300	3.83	33.97	27.01	108	0.47
1197	2.56	34.48	0.69	3.48a)	27.53	400	3.76	34.07	27.09	101	0.57
						500	3.68	34.16	27.18	94	0.67
						600	3.52	34.25	27.27	86	0.76
						700	3.33	34.31	27.33	81	0.84
						800	3.13	34.34	27.38	76	0.92
						1000	2.76	34.44	27.48	67	1.06

47

HUGH M. SMITH; August 6, 1958; 2159 GCT; 49°35'N, 159°45'W; wind, 280°, 10 kt; weather, overcast; sea, slight; wire angle, 05°.

0	9.28	32.82	6.48	1.82	25.39	0	9.28	32.82	25.39	260	0.00
15	9.22	32.84	6.50	1.82	25.42	10	9.24	32.83	25.40	258	0.03
35	9.17	32.82	6.45	1.40	25.41	20	9.22	32.82	25.40	259	0.05
49	6.14	32.92	7.05	1.48	25.92	30	9.18	32.81	25.40	259	0.08
93	4.29	33.06	6.35	2.00	26.24	50	6.03	32.92	25.93	208	0.12
188	3.54	33.87	2.39	3.32	26.96	75	5.00	33.01	26.12	190	0.17
305	3.57	34.01	1.24	3.81	27.06	100	4.15	33.11	26.29	174	0.22
412	3.58	34.15	0.79	4.00	27.17	125	3.75	33.32	26.50	154	0.26
512	3.49	34.21	0.61	3.40	27.23	150	3.53	33.54	26.69	136	0.30
619	3.33	34.28	0.56	3.25	27.30	200	3.52	33.90	26.98	108	0.36
825	2.95	34.37	0.63	3.64	27.41	250	3.49	34.00	27.06	101	0.41
1024	2.68	34.44	0.65	4.25	27.49	300	3.56	34.01	27.07	100	0.46
1222	2.44	34.48	0.77	3.72	27.54	400	3.58	34.13	27.16	92	0.56
						500	3.50	34.20	27.22	86	0.65
						600	3.36	34.26	27.28	80	0.74
						700	3.18	34.32	27.35	74	0.82
						800	3.00	34.36	27.40	69	0.90
						1000	2.71	34.43	27.48	61	1.04
						1200	2.47	34.47	27.53	56	1.17

a) Alternate value, 2.82 μg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
48	HUGH M. SMITH; August 7, 1958; 0755 GCT; 50°56'N, 159°48'W; wind, 320°, 14 kt; weather, overcast; sea, slight; wire angle, 07°.										
0	9.20	32.72	6.47	1.64	25.33	0	9.20	32.72	25.32	266	0.00
14	9.18	32.69	6.56	1.16	25.30	10	9.19	32.69	25.30	268	0.03
34	9.03	32.71	6.60	1.48	25.34	20	9.15	32.68	25.30	268	0.05
48	5.69	32.82	7.16	1.32	25.89	30	9.08	32.69	25.32	266	0.08
92	3.98	33.74	2.30	2.42	26.81	50	5.46	32.85	25.94	207	0.13
186	3.92	33.99	0.66	3.00	27.01	75	4.15	33.36	26.49	155	0.17
301	3.72	34.12	0.53	3.48	27.14	100	3.92	33.80	26.86	120	0.21
408	3.58	34.25	0.53	3.81	27.25	125	3.91	33.96	26.99	108	0.24
510	3.42	34.26	0.53	3.25	27.28	150	3.91	34.04	27.05	102	0.26
616	3.24	34.28	0.47	3.32	27.31	200	3.90	34.01	27.03	104	0.31
823	2.87	34.36	0.57	3.48	27.41	250	3.81	34.07	27.09	98	0.37
1023	2.60	34.43	0.63	3.40	27.49	300	3.72	34.11	27.13	94	0.42
1226	2.40	34.49	0.73	3.56	27.55	400	3.59	34.24	27.25	83	0.51
						500	3.44	34.26	27.28	81	0.59
						600	3.27	34.27	27.30	78	0.68
						700	3.09	34.31	27.35	74	0.76
						800	2.91	34.35	27.40	69	0.83
						1000	2.63	34.42	27.48	61	0.97
						1200	2.43	34.48	27.54	55	1.10
49	HUGH M. SMITH; August 7, 1958; 2016 GCT; 52°35'N, 159°56'W; wind, 320°, 20 kt; weather, overcast; sea, rough; wire angle, 31°.										
0	9.48	32.67	6.47	0.83	25.24	0	9.48	32.67	25.24	274	0.00
13	9.48	32.70	6.46	0.64	25.26	10	9.48	32.69	25.26	272	0.03
30	9.42	32.68	6.46	0.70	25.26	20	9.46	32.68	25.25	273	0.05
40	9.02	32.72	6.53	0.70	25.35	30	9.42	32.68	25.26	272	0.08
70	4.70	32.96	6.09	1.64	26.12	50	7.70	32.78	25.60	240	0.13
139	4.02	33.94	0.68	2.63	26.96	75	4.42	33.03	26.20	183	0.19
192	3.93	34.06	0.44	3.64	27.07	100	3.94	33.40	26.54	150	0.23
288	3.79	34.13	0.48	3.48	27.14	125	3.98	33.75	26.82	124	0.26
391	3.64	34.22	0.41	3.48	27.22	150	3.99	33.99	27.01	106	0.29
589	3.28	34.32	0.36	3.64	27.34	200	3.93	34.06	27.07	100	0.34
788	2.93	34.39	0.48	3.64	27.43	250	3.90	34.11	27.11	96	0.39
1023	2.58	34.47	0.54	3.48	27.52	300	3.80	34.14	27.14	93	0.44
1226	2.34	34.53	0.78	3.35	27.59	400	3.64	34.22	27.22	85	0.53
						500	3.48	34.28	27.29	79	0.62
						600	3.27	34.32	27.34	74	0.70
						700	3.14	34.36	27.38	70	0.78
						800	2.91	34.39	27.43	66	0.85
						1000	2.61	34.46	27.51	58	0.99
						1200	2.37	34.52	27.58	52	1.11

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

50

HUGH M. SMITH; August 8, 1958; 0654 GCT; 54°00'N, 159°55'W; wind, 290°, 14 kt; weather, overcast; sea, slight; wire angle, 07°.

0	11.43	32.38	6.65	0.32	24.68	0	11.43	32.38	24.68	327	0.00
20	11.41	32.48	6.52	0.42	24.76	10	11.42	32.43	24.72	323	0.03
29	8.80	32.75	6.53	1.48	25.41	20	11.41	32.48	24.76	319	0.06
54	5.11	32.91	6.60	1.91	26.03	30	8.58	32.76	25.45	254	0.09
107	4.04	33.69	2.26	3.17	26.76	50	5.46	32.90	25.98	203	0.14
216	4.02	34.05	0.44	3.32	27.05	75	4.10	33.20	26.37	167	0.19
326	3.83	34.17	0.40	3.00	27.17	100	4.00	33.58	26.68	137	0.22
444	3.63	34.21	0.48	3.09	27.22	125	4.03	33.81	26.86	120	0.26
557	3.46	34.32	0.40	2.62	27.32	150	4.03	33.94	26.96	110	0.29
670	3.24	34.34	0.39	3.32	27.36	200	4.03	34.05	27.05	102	0.34
889	2.90	34.42	0.39	3.81	27.45	250	3.97	34.10	27.10	98	0.39
1104	2.58	34.48	0.53	3.48	27.53	300	3.88	34.15	27.14	93	0.44
1304	2.37	34.53	0.71	3.00a)	27.59	400	3.70	34.19	27.19	88	0.53
						500	3.55	34.26	27.27	82	0.62
						600	3.38	34.33	27.34	75	0.70
						700	3.19	34.35	27.37	72	0.78
						800	3.03	34.38	27.41	68	0.86
						1000	2.73	34.45	27.49	60	0.99
						1200	2.48	34.50	27.55	54	1.12

51

HUGH M. SMITH; August 11, 1958; 1944 GCT; 50°00.5'N, 174°03'W; wind, 250°, 24 kt; weather, partly cloudy; sea, rough; wire angle, 22°.

0	9.70	32.51	6.48	0.91	25.08	0	9.70	32.51	25.08	289	0.00
9	9.72	32.52	6.45	0.83	25.09	10	9.75	32.52	25.08	289	0.03
18	9.71	32.54	6.48	0.91	25.10	20	9.45	32.56	25.16	281	0.06
31	7.58	32.74	6.68	1.48	25.58	30	7.78	32.72	25.54	245	0.08
90	3.69	33.46	4.67	2.82	26.62	50	5.00	33.00	26.11	191	0.13
199	4.03	34.00	0.80	3.32	27.01	75	4.09	33.30	26.45	159	0.17
300	3.81	34.12	0.58	3.48	27.13	100	3.65	33.54	26.68	137	0.21
405	3.62	34.23	0.60	3.72	27.23	125	4.15	33.71	26.77	129	0.24
508	3.39	34.31	0.59	3.64	27.32	150	4.15	33.84	26.87	119	0.27
611	3.32	34.32	0.47	3.64	27.34	200	4.03	34.00	27.01	106	0.33
817	2.96	34.41	0.50	0.50b)	27.44	250	3.95	34.08	27.08	99	0.38
1019	2.66	34.46	0.58	3.48	27.51	300	3.81	34.12	27.13	95	0.43
1213	2.44	34.50	0.76	3.85	27.56	400	3.63	34.22	27.23	85	0.52
						500	3.41	34.30	27.31	77	0.61
						600	3.33	34.32	27.33	75	0.69
						700	3.18	34.35	27.37	71	0.77
						800	2.99	34.40	27.43	66	0.84
						1000	2.69	34.45	27.50	60	0.98
						1200	2.45	34.49	27.55	55	1.10

a) Alternate value, 3.81 µg at/L.
b) Value uncertain; not used in interpolation.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
52	HUGH M. SMITH; August 12, 1958; 0405 GCT; 49°02.5'N, 174°36.5'W; wind, 280°, 20 kt; weather, fog; sea, rough; wire angle, 20°.										
0	9.94	32.74	6.45	1.16	25.22	0	9.94	32.74	25.22	276	0.00
9	9.96	32.68	6.48	1.16	25.17	10	9.97	32.68	25.17	281	0.03
19	9.96	32.70	6.49	1.08	25.19	20	9.92	32.70	25.19	278	0.06
32	9.22	32.70	6.58	1.48	25.31	30	9.37	32.70	25.28	270	0.08
93	3.36	33.18	6.83	1.82	26.42	50	5.00	32.80	25.96	206	0.13
205	3.48	33.82	2.36	3.32	26.92	75	3.70	33.00	26.25	178	0.18
310	3.61	34.03	1.04	3.81	27.08	100	3.30	33.23	26.47	157	0.22
421	3.55	34.10	0.80	3.81	27.14	125	3.40	33.40	26.60	145	0.26
528	3.41	34.22	0.64	3.48	27.25	150	3.50	33.55	26.71	135	0.29
637	3.22	34.26	0.60	3.48	27.30	200	3.50	33.79	26.90	117	0.36
851	2.90	34.35	0.59	3.48	27.40	250	3.55	33.94	27.01	106	0.41
1063	2.60	34.44	0.68	3.48	27.50	300	3.60	34.02	27.07	100	0.47
1261	2.36	34.50	0.81	3.40	27.56	400	3.57	34.09	27.13	95	0.57
						500	3.45	34.19	27.22	86	0.66
						600	3.29	34.25	27.28	80	0.75
						700	3.12	34.28	27.32	76	0.83
						800	2.97	34.32	27.37	72	0.91
						1000	2.69	34.41	27.46	63	1.05
						1200	2.43	34.48	27.54	55	1.18
53	HUGH M. SMITH; August 12, 1958; 1127 GCT; 48°03'N, 174°45'W; wind, 290°, 18 kt; weather, fog; sea, moderate; wire angle, 18°.										
0	10.72	33.00	6.41	1.16	25.29	0	10.72	33.00	25.29	269	0.00
14	10.72	33.00	6.53	1.32	25.29	10	10.72	33.00	25.29	269	0.03
24	8.66	33.04	6.83	1.48	25.66	20	9.56	33.02	25.50	249	0.05
52	5.06	33.11	7.01	1.64	26.19	30	7.67	33.05	25.81	219	0.08
104	3.68	33.20	6.92	1.82	26.41	50	5.23	33.10	26.17	186	0.12
208	3.40	33.77	3.12	3.00	26.89	75	3.97	33.14	26.33	170	0.16
314	3.42	33.96	1.83	3.48	27.04	100	3.70	33.19	26.40	164	0.20
425	3.46	34.06	1.78	3.48	27.11	125	3.48	33.30	26.51	153	0.24
531	3.38	34.13	1.03	3.64	27.18	150	3.45	33.44	26.62	142	0.28
638	3.23	34.24	0.75	3.64	27.28	200	3.40	33.72	26.85	121	0.35
845	2.92	34.36	0.71	3.64	27.40	250	3.39	33.87	26.97	109	0.41
1051	2.66	34.40	0.72	3.81	27.46	300	3.41	33.94	27.02	104	0.46
1246	2.42	34.49	0.81	3.90	27.55	400	3.46	34.04	27.10	97	0.56
						500	3.41	34.10	27.15	92	0.66
						600	3.29	34.20	27.24	84	0.75
						700	3.14	34.28	27.32	76	0.84
						800	2.99	34.34	27.38	71	0.92
						1000	2.72	34.39	27.45	64	1.06
						1200	2.48	34.46	27.52	57	1.20

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

HUGH M. SMITH; August 12, 1958; 1936 GCT; 47°14.5'N, 174°56'W; wind, 280°, 10 kt; weather, partly cloudy; sea, slight; wire angle, 00°. 54

0	11.05	32.99	6.35	1.40	25.22	0	11.05	32.99	25.22	275	0.00
20	11.01	33.00	6.45	1.24	25.24	10	11.03	32.99	25.23	275	0.03
36	8.10	33.01	6.80	1.56	25.72	20	11.01	33.00	25.24	274	0.06
80	4.42	33.13	6.95	1.82	26.28	30	9.29	33.00	25.53	246	0.08
136	3.67	33.22	6.83	2.00	26.43	50	6.44	33.04	25.97	204	0.13
205	3.61	33.77	3.47	3.09	26.87	75	4.61	33.11	26.24	178	0.17
306	3.43	33.93	2.27	3.48	27.01	100	3.86	33.14	26.34	169	0.22
412	3.42	34.05	1.49	3.25	27.11	125	3.62	33.19	26.41	163	0.26
513	3.46	34.19	1.09	3.48	27.22	150	3.90	33.32	26.48	156	0.30
622	3.27	34.27	0.83	3.56	27.30	200	3.60	33.72	26.83	123	0.37
833	2.96	34.42	0.72	3.52	27.45	250	3.53	33.89	26.97	109	0.43
1037	2.66	34.43	0.80	3.56	27.48	300	3.44	33.93	27.01	105	0.48
1237	2.44	34.51	0.89	3.64	27.57	400	3.42	34.03	27.09	98	0.59
						500	3.46	34.17	27.20	88	0.68
						600	3.32	34.25	27.28	80	0.77
						700	3.15	34.33	27.36	73	0.85
						800	3.01	34.40	27.43	66	0.93
						1000	2.71	34.43	27.48	61	1.07
						1200	2.48	34.49	27.55	55	1.19

HUGH M. SMITH; August 13, 1958; 0555 GCT; 46°12'N, 174°56'W; wind, 280°, 10 kt; weather, fog; sea, slight; wire angle, 04°. 56

0	12.38	32.97	6.21	1.48	24.96	0	12.38	32.97	24.96	300	0.00
10	11.88	33.03	6.26	1.32	25.10	10	11.88	33.03	25.10	287	0.03
25	10.22	33.05	6.57	1.32	25.41	20	10.86	33.04	25.30	268	0.06
50	6.43	33.23	7.03	1.48	26.12	30	9.44	33.08	25.57	243	0.08
100	4.60	33.26	6.79	1.64	26.36	50	6.43	33.23	26.12	190	0.13
205	4.76	33.84	4.37	2.63	26.81	75	4.96	33.26	26.32	171	0.17
306	3.71	33.87	2.87	3.17	26.94	100	4.60	33.26	26.36	167	0.21
413	3.61	34.00	1.93	3.81	27.05	125	4.45	33.39	26.48	156	0.25
516	3.58	34.13	1.27	3.81	27.16	150	4.90	33.52	26.54	151	0.29
625	3.41	34.25	0.96	4.25	27.27	200	4.90	33.81	26.77	129	0.36
835	3.06	34.35	0.79	3.64	27.38	250	4.31	33.88	26.89	117	0.43
1035	2.78	34.44	0.73	3.81	27.48	300	3.78	33.87	26.93	113	0.49
1234	2.50	34.47	0.83	3.56	27.53	400	3.59	33.98	27.04	103	0.60
						500	3.59	34.11	27.14	93	0.70
						600	3.46	34.22	27.24	84	0.79
						700	3.28	34.29	27.31	77	0.88
						800	3.12	34.34	27.37	72	0.95
						1000	2.83	34.42	27.46	63	1.10
						1200	2.55	34.46	27.52	58	1.23

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
60	HUGH M. SMITH; August 14, 1958; 0604 GCT; 45°12'N, 174°53.5'W; wind, 320°, 6 kt; weather, distant fog higher than observer; sea, slight; wire angle, 16°.										
0	13.18	33.06	6.08	1.32	24.88	0	13.18	33.06	24.88	308	0.00
9	12.87	33.04	6.11	1.40	24.92	10	12.75	33.04	24.95	302	0.03
19	11.40	33.14	6.44	1.48	25.28	20	11.20	33.14	25.31	267	0.06
42	7.12	33.28	6.92	1.64	26.07	30	9.29	33.21	25.69	231	0.08
95	5.88	33.58	6.60	1.48	26.47	50	6.52	33.33	26.19	184	0.13
195	5.84	33.82	5.33	2.00	26.66	75	5.78	33.47	26.39	164	0.17
290	4.39	33.86	3.49	3.00	26.86	100	5.86	33.59	26.48	156	0.21
391	3.92	34.21u	2.81	3.32	27.19	125	6.35	33.68	26.49	155	0.25
488	3.71	34.06	1.81	3.64	27.09	150	6.50	33.75	26.52	152	0.29
591	3.58	34.14	1.28	3.90	27.17	200	5.77	33.82	26.67	138	0.36
790	3.27	34.30	0.87	3.81	27.32	250	5.02	33.83	26.77	129	0.43
985	2.95	34.39	0.73	4.25	27.43	300	4.31	33.89	26.89	117	0.49
1184	2.65	34.45	0.71	4.10	27.50	400	3.89	34.20	27.18	89	0.60
						500	3.69	34.06	27.09	98	0.70
						600	3.57	34.14	27.17	91	0.79
						700	3.42	34.23	27.25	83	0.89
						800	3.25	34.30	27.33	76	0.97
						1000	2.93	34.39	27.43	66	1.12
62	HUGH M. SMITH; August 15, 1958; 2040 GCT; 44°23'N, 174°40.5'W; wind, 010°, 22 kt; weather, fog; sea, moderate; wire angle, 32°.										
0	13.75	33.10	6.06	1.00	24.79	0	13.75	33.10	24.79	316	0.00
12	13.18	33.17	6.30	0.83	24.96	10	13.27	33.15	24.93	303	0.03
20	11.18	33.37	6.92	0.83	25.50	20	11.18	33.37	25.50	250	0.06
47	7.64	33.58	6.63	1.32	26.23	30	9.43	33.49	25.89	212	0.08
89	7.31	33.68	6.38	1.48	26.36	50	7.51	33.59	26.26	178	0.12
177	6.56	33.71	6.26	1.32	26.48	75	7.07	33.66	26.38	167	0.16
267	6.03	33.92	4.22	2.41	26.72	100	7.21	33.68	26.38	167	0.21
361	4.73	33.95	3.56	2.62	26.90	125	6.99	33.69	26.42	164	0.25
451	4.14	34.00	2.44	3.48	27.00	150	6.78	33.70	26.45	161	0.29
543	3.88	34.05	1.73	3.64	27.07	200	6.45	33.76	26.54	153	0.37
724	3.50	34.23	1.02	3.64	27.25	250	6.15	33.88	26.67	141	0.44
916	3.20	34.36	0.80	4.00	27.38	300	5.58	33.94	26.79	130	0.51
1105	2.83	34.43	0.68	4.10	27.47	400	4.41	33.97	26.95	116	0.63
						500	3.98	34.02	27.04	108	0.74
						600	3.75	34.10	27.12	100	0.85
						700	3.54	34.20	27.22	91	0.94
						800	3.38	34.28	27.30	84	1.03
						1000	3.04	34.39	27.42	74	1.19
63	HUGH M. SMITH; August 16, 1958; 0554 GCT; 43°29'N, 174°48.5'W; wind, 310°, 17 kt; weather, distant fog higher than observer; sea, moderate; wire angle, 01°.										
0	14.80	33.31	5.93	0.83	24.73	0	14.80	33.31	24.73	322	0.00
9	14.80	33.28	6.11	0.83	24.71	10	14.59	33.28	24.76	320	0.03
24	10.86	33.41	6.58	1.00	25.58	20	12.06	33.36	25.33	266	0.06
59	8.60	33.79	6.30	1.32	26.25	30	10.09	33.48	25.77	223	0.09
109	7.42	33.77	6.26	1.32	26.41	50	8.66	33.79	26.25	178	0.13
220	7.07	33.87	5.38	1.48	26.54	75	8.06	33.75	26.31	173	0.17
333	5.49	33.95	3.71	2.82	26.81	100	7.52	33.79	26.42	162	0.21
452	4.29	33.98	2.81	3.17	26.97	125	7.50	33.77	26.40	163	0.25
565	4.00	34.18	1.76	3.48	27.16	150	7.52	33.79	26.42	162	0.29
678	3.76	34.19	1.16	3.48	27.19	200	7.30	33.84	26.49	155	0.38
895	3.24	34.33	0.79	4.25	27.35	250	6.69	33.89	26.61	144	0.45
1111	2.86	34.39	0.68	4.25	27.43	300	5.99	33.93	26.73	132	0.52
1314	2.58	34.47	0.65	3.48	27.52	400	4.73	33.95	26.90	117	0.65
						500	4.11	34.06	27.05	102	0.76
						600	3.92	34.19	27.17	90	0.87
						700	3.71	34.20	27.20	88	0.96
						800	3.46	34.26	27.27	81	1.05
						1000	3.04	34.36	27.39	69	1.21
						1200	2.74	34.42	27.47	62	1.36

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HUGH M. SMITH; August 18, 1958; 0529 GCT; 42°47'N, 175°08'W; wind, 290°, 18 kt; weather, distant fog higher than observer; sea, moderate; wire angle, 29°.											67
0	15.94	33.41	5.81	0.50	24.56	0	15.94	33.41	24.56	339	0.00
8	15.96	33.45	5.81	0.59	24.59	10	15.98	33.44	24.57	337	0.03
13	15.86	33.44	5.87	0.50	24.60	20	13.80	33.54	25.12	285	0.06
25	12.00	33.66	6.72	0.70	25.57	30	11.21	33.74	25.78	223	0.09
47	9.98	33.98	6.17	1.00	26.18	50	9.84	33.99	26.21	182	0.13
93	8.97	34.01	5.93	1.32	26.37	75	8.80	34.05	26.43	161	0.17
187	7.63	33.88	5.94	1.16	26.47	100	8.84	34.00	26.38	165	0.22
283	6.89	33.99	4.73	1.91	26.66	125	8.43	33.96	26.41	162	0.26
382	5.22	33.95	3.47	2.63	26.84	150	8.06	33.93	26.45	159	0.30
577	3.98	34.07	1.70	3.32	27.07	200	7.54	33.89	26.49	155	0.38
773	3.56	34.25	0.94	3.64	27.26	250	7.16	33.94	26.58	146	0.45
970	3.12	34.37	0.75	4.00	27.39	300	6.61	33.98	26.69	136	0.53
1160	2.80	34.43	0.68	3.81	27.47	400	5.03	33.95	26.86	120	0.66
						500	4.26	34.00	26.99	108	0.78
						600	3.91	34.09	27.09	98	0.89
						700	3.67	34.18	27.19	89	0.98
						800	3.50	34.27	27.28	80	1.07
						1000	3.07	34.37	27.40	69	1.24
HUGH M. SMITH; August 20, 1958; 0556 GCT; 41°35'N, 175°08.5'W; wind, 360°, 18 kt; weather, overcast; sea, rough; wire angle, 27°.											69
0	16.41	33.70	5.81	0.32	24.67	0	16.41	33.70	24.67	328	0.00
13	16.41	33.75	5.78	0.00	24.71	10	16.41	33.73	24.70	325	0.03
22	13.32	33.77	6.52	0.20	25.40	20	14.07	33.76	25.23	274	0.06
52	10.08	34.02	6.18	0.50	26.19	30	11.82	33.83	25.73	227	0.09
96	9.14	33.97	6.07	0.50	26.31	50	10.09	34.00	26.18	185	0.13
197	8.36	34.01	5.71	1.00	26.46	75	9.28	34.02	26.33	171	0.17
300	7.25	34.04	4.61	1.32	26.65	100	9.25	33.97	26.29	174	0.22
410	5.43	33.97	3.51	2.00	26.83	125	9.50	33.97	26.25	178	0.26
516	4.45	33.99	2.54	2.41	26.96	150	9.15	33.97	26.31	172	0.31
624	4.07	34.10	1.77	2.63	27.09	200	8.33	34.01	26.47	157	0.39
832	3.53	34.31	0.95	2.82	27.31	250	7.84	34.03	26.56	149	0.47
1039	3.07	34.35	0.73	2.82	27.38	300	7.25	34.04	26.65	140	0.54
1234	2.72	34.45	0.64	3.48	27.49	400	5.59	33.97	26.81	125	0.68
						500	4.55	33.98	26.94	112	0.80
						600	4.12	34.07	27.06	101	0.92
						700	3.85	34.18	27.17	90	1.02
						800	3.60	34.28	27.28	81	1.11
						1000	3.15	34.34	27.37	72	1.27
						1200	2.78	34.43	27.47	62	1.42
HUGH M. SMITH; August 22, 1958; 2236 GCT; 41°33'N, 175°01.5'W; wind, calm; weather, cloudy; sea, slight; wire angle, 22°.											71
0	17.83	34.14	5.62	0.50	24.68	0	17.83	34.14	24.68	328	0.00
9	17.78	34.14	5.54	0.42	24.69	10	17.78	34.14	24.69	326	0.03
18	17.76	34.15	5.53	0.42	24.70	20	17.39	34.14	24.78	317	0.06
31	14.78	34.12	6.15	0.32	25.36	30	15.06	34.12	25.30	268	0.09
88	10.38	34.19	5.73	0.83	26.27	50	10.84	34.12	26.14	188	0.14
194	9.16	34.14	5.64	1.16	26.44	75	10.50	34.16	26.23	180	0.19
294	7.62	34.07	4.46	1.82	26.62	100	10.20	34.19	26.31	173	0.23
436	5.32	34.02	3.36	2.62	26.88	125	9.90	34.18	26.35	168	0.27
530	4.57	34.04	2.45	3.00	26.98	150	9.70	34.17	26.37	166	0.32
629	4.14	34.18	1.71	3.17	27.14	200	9.07	34.13	26.45	159	0.40
824	3.58	34.31	0.92	3.24	27.30	250	8.32	34.10	26.54	150	0.48
1013	3.11	34.42	0.70	3.81	27.43	300	7.51	34.06	26.63	142	0.55
1206	2.77	34.45	0.65	3.72	27.49	400	5.84	34.02	26.82	124	0.69
						500	4.76	34.02	26.95	112	0.81
						600	4.24	34.13	27.09	98	0.93
						700	3.91	34.23	27.21	87	1.02
						800	3.64	34.30	27.29	79	1.11
						1000	3.14	34.41	27.42	67	1.27
						1200	2.78	34.44	27.48	61	1.41

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
74	HUGH M. SMITH; August 23, 1958; 0342 GCT; 41°52'N, 175°16.5'W; wind, 030°, 3 kt; weather, overcast; sea, slight; wire angle, 22°.										
0	14.83	33.72	6.01	0.64	25.04	0	14.83	33.72	25.04	293	0.00
19	14.65	33.69	6.04	0.83	25.06	10	14.74	33.70	25.05	292	0.03
28	13.54	33.71	6.30	0.59	25.31	20	14.55	33.69	25.08	289	0.06
51	9.93	34.05	6.09	1.32	26.24	30	13.21	33.73	25.39	260	0.09
102	8.91	34.00	0.74a)	0.59	26.37	50	10.08	34.03	26.20	182	0.13
202	7.61	33.88	6.10	1.24	26.47	75	9.40	34.04	26.32	171	0.17
303	6.71	34.02	4.63	2.30b)	26.71	100	8.86	34.01	26.39	165	0.22
412	5.14	33.97	3.53	2.63	26.87	125	8.90	33.96	26.34	169	0.26
518	4.28	34.00	2.53	1.82b)	26.98	150	8.55	33.92	26.36	167	0.30
625	4.02	34.11	1.66	3.32	27.10	200	7.63	33.88	26.47	157	0.38
832	3.48	34.30	6.06a)	3.64	27.30	250	7.60	33.94	26.52	152	0.46
1036	3.04	34.42	0.94	3.81	27.44	300	6.74	34.01	26.70	135	0.54
1229	2.73	34.48	0.66	3.81	27.52	400	5.31	33.97	26.85	121	0.67
						500	4.38	33.98	26.96	111	0.79
						600	4.05	34.08	27.07	100	0.90
						700	3.82	34.18	27.17	90	1.00
						800	3.56	34.27	27.27	81	1.09
						1000	3.11	34.40	27.42	67	1.25
						1200	2.78	34.47	27.50	59	1.39
79	HUGH M. SMITH; August 24, 1958; 0436 GCT; 40°29'N, 175°11'W; wind, 110°, 19 kt; weather, moderate drizzle; sea, moderate; wire angle, 35°.										
0	17.62	34.02	5.54	0.12	24.63	0	17.62	34.02	24.63	331	0.00
8	17.62	33.96	5.56	0.12	24.59	10	17.62	33.96	24.59	336	0.03
15	17.61	33.98	5.55	0.37	24.61	20	16.28	34.02	24.95	301	0.07
26	14.25	34.09	6.10	0.26	25.45	30	13.53	34.10	25.61	239	0.09
76	10.10	34.07	5.90	0.64	26.23	50	11.20	34.17	26.11	191	0.14
169	9.34	34.14	5.59	0.91	26.41	75	10.08	34.07	26.23	179	0.18
255	7.91	34.05	5.39	1.08	26.56	100	9.56	34.09	26.34	170	0.23
349	6.63	34.01	4.34	1.56	26.71	125	9.80	34.10	26.30	173	0.27
439	5.30	34.04	3.44	2.30	26.90	150	9.80	34.12	26.32	171	0.31
532	4.50	34.07	2.52	2.73	27.02	200	8.85	34.11	26.47	157	0.40
719	3.86	34.20	1.29	3.24	27.19	250	8.00	34.05	26.55	149	0.48
911	3.38	34.33	0.88	3.56	27.34	300	7.29	34.02	26.63	142	0.55
1100	2.98	34.44	0.70	3.72c)	27.46	400	5.85	34.02	26.82	124	0.69
						500	4.72	34.05	26.98	109	0.81
						600	4.18	34.11	27.08	99	0.92
						700	3.89	34.18	27.17	91	1.02
						800	3.64	34.25	27.25	83	1.11
						1000	3.19	34.38	27.39	69	1.28

a) These two sample bottles may have been interchanged.
b) Value uncertain, not used in interpolation.
c) Alternate value, 3.24 μg at/L.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

HUGH M. SMITH; August 24, 1958; 1547 GCT; 39°14.5'N, 175°10'W; wind, 200°, 19 kt; weather, missing; sea, moderate; wire angle, 17°. 80

0	19.80	34.25	5.22	0.00	24.26	0	19.80	34.25	24.26	367	0.00
9	19.77	34.25	5.22	0.20	24.27	10	19.80	34.24	24.25	368	0.04
24	19.62	34.22	5.26	0.20	24.29	20	19.80	34.22	24.24	369	0.07
38	16.70	34.26	6.31	0.20	25.04	30	18.49	34.23	24.58	337	0.11
106	13.06	34.40	5.18	0.83	25.94	50	15.35	34.29	25.37	262	0.17
211	11.37	34.30	4.94	1.16	26.18	75	14.00	34.35	25.70	230	0.23
317	9.34	34.13	5.38	1.32	26.40	100	13.20	34.39	25.90	211	0.29
428	7.23	34.03	4.31	1.82	26.64	125	12.59	34.39	26.02	200	0.34
535	5.44	33.96	3.36	2.19	26.82	150	12.08	34.38	26.11	191	0.39
642	4.31	33.96	2.46	3.17	26.95	200	11.44	34.32	26.19	184	0.48
853	3.72	34.20	1.16	3.48	27.20	250	10.64	34.23	26.26	177	0.58
1063	3.16	34.31	0.73	3.64	27.34	300	9.68	34.15	26.36	167	0.67
1259	2.82	34.40	0.66	3.81	27.44	400	7.75	34.05	26.59	146	0.83
						500	5.98	33.97	26.76	129	0.97
						600	4.68	33.95	26.90	116	1.10
						700	4.04	34.01	27.02	105	1.22
						800	3.76	34.13	27.14	93	1.32
						1000	3.32	34.28	27.30	78	1.51
						1200	2.92	34.37	27.41	68	1.67

HUGH M. SMITH; August 25, 1958; 0102 GCT; 37°58'N, 174°59'W; wind, 210°, 22 kt; weather, cloudy; sea, moderate; wire angle, 16°. 82

0	21.82	34.34	4.98	0.20	23.79	0	21.82	34.34	23.79	412	0.00
9	21.76	34.33	5.05	0.20	23.80	10	21.82	34.33	23.78	413	0.04
24	21.28	34.37	5.16	0.00	23.96	20	21.81	34.35	23.80	411	0.08
33	17.24	34.38	6.17	0.00	25.00	30	18.61	34.37	24.66	329	0.12
47	15.65	34.51	5.85	0.00	25.47	50	15.45	34.52	25.52	247	0.18
104	13.88	34.50	5.07	0.42	25.84	75	14.40	34.52	25.75	225	0.24
209	12.51	34.38	4.94	0.70	26.03	100	13.87	34.51	25.85	215	0.29
315	10.71	34.25	4.90	1.00	26.26	125	13.52	34.48	25.90	211	0.35
427	8.56	34.07	4.80	1.40	26.48	150	13.15	34.45	25.96	206	0.40
640	4.95	33.97	2.88	2.73	26.89	200	12.59	34.39	26.02	200	0.50
848	3.96	34.12	1.33	3.17	27.11	250	11.85	34.33	26.12	190	0.60
1054	3.30	34.29	0.76	3.64	27.31	300	10.98	34.27	26.23	180	0.70
1251	2.89	34.39	0.64	3.81	27.43	400	9.08	34.11	26.43	161	0.88
						500	7.14	34.00	26.63	141	1.04
						600	5.50	33.96	26.81	124	1.18
						700	4.52	34.00	26.96	111	1.30
						800	4.06	34.07	27.06	101	1.41
						1000	3.45	34.24	27.26	82	1.61
						1200	3.00	34.36	27.40	69	1.78

HUGH M. SMITH; August 25, 1958; 2154 GCT; 39°25'N, 170°58.5'W; wind, 220°, 15 kt; weather, overcast; sea, slight; wire angle, 12°. 83

0	19.64	34.39	5.25	0.00	24.41	0	19.64	34.39	24.41	353	0.00
9	19.58	34.41	5.31	0.00	24.44	10	19.63	34.41	24.43	351	0.04
24	19.54	34.41	5.31	0.00	24.45	20	19.56	34.41	24.45	349	0.07
43	14.98	34.39	6.55	0.00	25.53	30	18.27	34.40	24.77	319	0.10
97	12.62	34.36	5.40	0.50	25.99	50	14.20	34.38	25.69	231	0.16
200	10.95	34.24	5.47	0.70	26.21	75	13.00	34.37	25.92	209	0.21
298	9.54	34.12	5.34	0.70	26.36	100	12.54	34.35	26.00	202	0.27
402	7.85	34.03	4.52	1.08	26.56	125	11.97	34.33	26.09	193	0.32
502	5.94	33.95	3.58	1.48	26.75	150	11.52	34.30	26.16	187	0.36
609	4.71	33.97	2.70	1.82	26.91	200	10.95	34.24	26.21	181	0.46
817	3.90	34.15	1.25	2.63	27.14	250	10.23	34.17	26.28	175	0.55
1017	3.35	34.31	0.73	2.63	27.32	300	9.51	34.11	26.36	167	0.64
1217	2.91	34.38	0.59	3.00	27.42	400	7.88	34.03	26.55	149	0.80
						500	5.98	33.95	26.75	131	0.95
						600	4.79	33.96	26.90	116	1.08
						700	4.21	34.03	27.02	105	1.20
						800	3.92	34.13	27.12	95	1.30
						1000	3.39	34.29	27.30	78	1.49
						1200	2.95	34.37	27.41	68	1.65

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
87	HUGH M. SMITH; August 26, 1958; 2345 GCT; 40°28.5'N, 170°32.5'W; wind, 200°, 19 kt; weather, fog; sea, slight; wire angle, 22°.										
0	16.02	33.85	5.81	0.20	24.88	0	16.02	33.85	24.88	308	0.00
19	15.75	33.87	5.90	0.00	24.96	10	15.88	33.86	24.92	305	0.03
33	13.44	34.18	6.37	0.32	25.69	20	15.60	33.89	25.01	297	0.06
52	11.66	34.19	5.87	0.42	26.04	30	13.97	34.11	25.53	247	0.09
102	10.52	34.17	5.65	0.70	26.23	50	11.79	34.20	26.03	200	0.13
202	9.03	34.04	5.81	0.83	26.38	75	10.80	34.18	26.20	184	0.18
301	8.26	34.05	4.78	1.32	26.51	100	10.51	34.17	26.24	181	0.23
409	6.08	33.97	4.05	2.20	26.75	125	10.10	34.13	26.28	177	0.27
514	4.84	33.95	3.02	3.00	26.88	150	9.69	34.10	26.33	174	0.32
621	4.26	34.08	1.97	3.00	27.05	200	9.05	34.04	26.38	169	0.40
829	3.69	34.22	1.02	3.32	27.22	250	8.69	34.04	26.44	165	0.48
1035	3.14	34.34	0.70	3.48	27.37	300	8.27	34.05	26.51	158	0.57
1231	2.77	34.40	0.70	3.32	27.45	400	6.27	33.97	26.73	137	0.71
						500	4.96	33.94	26.87	124	0.84
						600	4.34	34.05	27.02	110	0.96
						700	4.00	34.14	27.13	101	1.07
						800	3.75	34.20	27.20	94	1.16
						1000	3.23	34.32	27.35	81	1.34
						1200	2.83	34.39	27.44	73	1.49
89	HUGH M. SMITH; August 28, 1958; 2016 GCT; 41°26'N, 170°39'W; wind, direction missing, 12 kt; weather, sky obscured; sea, rough; wire angle, 30°.										
0	15.42	33.69	5.76	0.70	24.89	0	15.42	33.69	24.89	307	0.00
8	15.44	33.69	5.69	0.70	24.89	10	15.44	33.68	24.88	308	0.03
22	15.26	33.74	5.84	0.59	24.96	20	15.35	33.72	24.93	303	0.06
40	12.51	34.16	6.27	0.83	25.86	30	14.15	33.91	25.33	265	0.09
96	10.40	34.09	5.84	1.16	26.19	50	11.73	34.14	25.99	202	0.14
191	9.49	34.10	5.91	1.16	26.36	75	11.00	34.10	26.09	193	0.19
288	8.51	34.04	4.99	1.64	26.46	100	10.33	34.08	26.20	183	0.23
389	6.67	33.97	4.12	1.82	26.67	125	9.95	34.08	26.26	177	0.28
488	5.00	33.91	3.36	2.00	26.83	150	9.68	34.09	26.32	172	0.32
587	4.33	34.02	2.27	2.82	26.99	200	9.42	34.09	26.36	168	0.41
784	3.74	34.32	1.07	3.00	27.29	250	8.94	34.06	26.41	162	0.49
983	3.22	34.30	0.76	3.17	27.33	300	8.31	34.03	26.49	155	0.58
1176	2.84	34.39	0.58	2.82	27.43	400	6.46	33.95	26.69	136	0.73
						500	4.89	33.91	26.85	121	0.86
						600	4.27	34.04	27.02	105	0.98
						700	3.93	34.20	27.18	90	1.08
						800	3.69	34.32	27.30	78	1.17
						1000	3.19	34.30	27.33	75	1.34
90	HUGH M. SMITH; August 29, 1958; 0538 GCT; 42°21'N, 170°12'W; wind, 270°, 4 kt; weather, cloudy; sea, slight; wire angle, 33°.										
0	15.73	33.87	5.78	0.70	24.96	0	15.73	33.87	24.96	301	0.00
8	15.71	33.86	5.72	0.70	24.96	10	15.73	33.85	24.94	302	0.03
20	15.60	33.85	5.81	0.70	24.97	20	15.60	33.85	24.97	299	0.06
36	14.00	33.96	6.14	0.76	25.40	30	14.68	33.91	25.22	276	0.09
87	10.40	34.08	5.90	1.16	26.19	50	12.78	34.01	25.69	231	0.14
173	9.49	34.10	5.92	1.32	26.36	75	11.04	34.07	26.06	195	0.19
262	8.58	34.05	5.22	1.32	26.46	100	10.21	34.09	26.23	180	0.24
354	7.07	33.98	4.69	1.73	26.63	125	9.90	34.10	26.29	174	0.29
445	5.68	33.94	3.64	2.52	26.78	150	9.67	34.10	26.33	171	0.33
534	4.67	33.97	2.84	2.73	26.92	200	9.24	34.09	26.39	165	0.42
715	4.00	34.12	1.36	3.00	27.11	250	8.72	34.05	26.44	160	0.50
903	3.46	34.27	0.83	3.24	27.28	300	7.99	34.02	26.53	152	0.58
1093	3.08	34.35	0.60	3.24	27.38	400	6.34	33.95	26.70	135	0.73
						500	5.01	33.95	26.86	120	0.86
						600	4.31	34.01	26.99	108	0.98
						700	4.02	34.10	27.09	98	1.09
						800	3.74	34.19	27.19	89	1.19
						1000	3.27	34.31	27.33	75	1.36

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

HUGH M. SMITH; August 30, 1958; 2336 GCT; 43°18'N, 169°39'W; wind, 080°, 18 kt; weather, cloudy; sea, slight; wire angle, 12°. 93

0	13.92	33.32	5.93	0.59	24.93	0	13.92	33.32	24.93	304	0.00
9	13.94	33.33	5.97	0.59	24.93	10	13.97	33.32	24.92	305	0.03
24	13.57	33.41	6.12	0.59	25.07	20	13.83	33.36	24.98	299	0.06
39	10.44	34.00	6.46	0.64	26.12	30	12.42	33.62	25.46	253	0.09
106	9.08	34.10	5.86	0.91	26.42	50	9.90	34.07	26.26	177	0.13
216	8.14	34.03	5.76	1.08	26.51	75	9.37	34.10	26.37	166	0.17
326	6.45	33.96	4.17	1.56	26.70	100	9.10	34.10	26.42	162	0.22
442	4.91	33.96	3.55	2.00	26.88	125	8.89	34.09	26.44	159	0.26
554	4.18	34.03	2.17	2.30	27.02	150	8.65	34.08	26.47	157	0.30
667	3.91	34.16	1.44	2.63	27.15	200	8.25	34.04	26.50	154	0.38
885	3.42	34.36	0.85	2.63	27.36	250	7.65	34.00	26.56	148	0.45
1100	2.96	34.47	0.70	2.73	27.49	300	6.87	33.97	26.65	140	0.53
1302	2.64	34.44	0.60	2.92	27.49	400	5.41	33.95	26.82	124	0.66
						500	4.46	33.98	26.95	111	0.79
						600	4.04	34.08	27.07	100	0.90
						700	3.83	34.19	27.18	89	1.00
						800	3.61	34.29	27.28	80	1.09
						1000	3.16	34.43	27.44	65	1.25
						1200	2.80	34.45	27.49	61	1.39

HUGH M. SMITH; August 31, 1958; 0740 GCT; 44°06'N, 169°20.5'W; wind, 100°, 18 kt; weather, intermittent slight drizzle; sea, moderate; wire angle, 15°. 95

0	12.51	32.90	6.12	0.83	24.88	0	12.51	32.90	24.88	308	0.00
9	12.58u	32.92	6.15	0.83	24.89	10	12.57	32.92	24.89	307	0.03
29	11.50	33.00	6.32	0.83	25.15	20	12.22	32.95	24.98	299	0.06
54	7.18	33.27	6.89	1.00	26.05	30	11.34	33.01	25.19	279	0.09
106	5.61	33.36	6.61	1.16	26.33	50	7.90	33.22	25.91	210	0.14
214	6.29	33.84	5.14	1.48	26.62	75	5.87	33.33	26.27	176	0.19
322	4.68	33.92	3.36	1.82	26.88	100	5.60	33.36	26.33	170	0.23
437	3.88	33.93	2.44	2.20	26.97	125	5.80	33.44	26.37	167	0.27
548	3.74	34.07	1.57	2.30	27.10	150	6.30	33.55	26.39	164	0.32
658	3.67	34.18	1.16	2.42	27.19	200	6.62	33.77	26.52	152	0.40
874	3.12	34.36	0.73	2.91	27.39	250	5.83	33.89	26.72	133	0.47
1088	2.79	34.39	0.73	3.00	27.44	300	5.07	33.92	26.83	122	0.53
1288	2.51	34.45	0.71	3.00	27.51	400	4.05	33.92	26.94	112	0.65
						500	3.76	34.00	27.04	103	0.77
						600	3.71	34.12	27.14	94	0.87
						700	3.58	34.22	27.23	85	0.96
						800	3.33	34.30	27.32	77	1.05
						1000	2.91	34.38	27.42	67	1.20
						1200	2.63	34.42	27.48	61	1.35

HBL

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OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
96	HUGH M. SMITH; September 1, 1958; 0534 GCT; 45°45.5'N, 168°46.5'W; wind, 160°, 13 kt; weather, thick drizzle; sea, slight; wire angle, 04°.										
0	12.38	32.86	6.15	1.16	24.88	0	12.38	32.86	24.88	308	0.00
11	12.38	32.89	6.14	1.00	24.90	10	12.38	32.88	24.89	307	0.03
26	12.26	32.91	6.15	1.00	24.94	20	12.38	32.89	24.90	306	0.06
47	7.32	33.14	6.90	1.16	25.93	30	11.45	32.94	25.11	286	0.09
112	5.00	33.30	6.61	1.32	26.35	50	6.98	33.15	25.99	203	0.14
223	4.60	33.84	3.64	1.82	26.82	75	5.60	33.25	26.24	179	0.19
336	3.92	33.90	2.51	2.20	26.94	100	5.02	33.29	26.34	169	0.23
454	3.75	34.03	2.06	2.41	27.06	125	5.12	33.36	26.39	165	0.27
567	3.61	34.16	1.22	1.82a)	27.18	150	5.44	33.49	26.45	159	0.31
678	3.41	34.21	0.98	2.82	27.24	200	4.81	33.73	26.71	134	0.39
898	3.06	34.32	0.73	3.00	27.36	250	4.43	33.87	26.87	119	0.45
1113	2.72	34.43	0.71	3.00	27.48	300	4.12	33.90	26.92	114	0.51
1314	2.48	34.47	0.76	2.91	27.53	400	3.79	33.96	27.00	106	0.63
						500	3.70	34.08	27.11	97	0.73
						600	3.55	34.17	27.19	88	0.83
						700	3.37	34.22	27.25	83	0.92
						800	3.21	34.27	27.31	78	1.00
						1000	2.89	34.37	27.41	67	1.16
						1200	2.62	34.44	27.49	60	1.30
98	HUGH M. SMITH; September 2, 1958; 0420 GCT; 46°34'N, 164°44'W; wind, 240°, 14 kt; weather, fog; sea, moderate; wire angle, 27°.										
0	11.38	32.76	6.21	1.32	24.99	0	11.38	32.76	24.99	298	0.00
13	11.40	32.77	6.26	1.32	24.99	10	11.40	32.76	24.98	298	0.03
26	10.80	32.89	6.36	1.32	25.19	20	11.22	32.82	25.06	291	0.06
47	6.32	33.13	6.98	1.32	26.06	30	10.02	32.93	25.36	263	0.09
94	5.22	33.26	6.69	1.49	26.29	50	6.06	33.14	26.10	192	0.13
189	5.01	33.93u	4.13b)	2.30	26.85	75	5.50	33.23	26.24	179	0.18
284	3.99	33.90	2.78	1.82	26.94	100	5.18	33.30	26.33	170	0.22
383	3.72	33.96	2.01	2.10	27.01	125	5.05	33.48	26.49	155	0.26
479	3.64	34.08	1.22	2.82	27.11	150	5.40	33.66	26.59	146	0.30
577	3.52	34.17	1.04	2.41	27.20	200	4.89	33.94	26.87	119	0.37
769	3.24	34.29	0.75	3.00	27.32	250	4.36	33.94	26.93	113	0.43
967	2.89	34.40	0.63	2.82	27.44	300	3.91	33.90	26.94	112	0.49
1160	2.63	34.45	0.71	2.14	27.50	400	3.70	33.98	27.03	104	0.60
						500	3.62	34.10	27.13	94	0.70
						600	3.49	34.18	27.21	87	0.79
						700	3.35	34.25	27.28	80	0.88
						800	3.18	34.31	27.34	74	0.97
						1000	2.85	34.40	27.44	65	1.12

a) Value uncertain; not used in interpolation.
b) Value uncertain; used in interpolation.

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ_T	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

99

HUGH M. SMITH; September 3, 1958; 0853 GCT; 45°37.5'N, 164°47'W; wind, 230°, 22 kt; weather, heavy rain; sea, moderate; wire angle, 25°.

0	12.01	32.68	6.23	1.16	24.81	0	12.01	32.68	24.81	315	0.00
13	12.00	32.71	6.32	0.70	24.83	10	12.00	32.70	24.83	313	0.03
32	11.52	32.86	6.24	1.00	25.04	20	12.00	32.74	24.86	310	0.06
50	6.82	33.22	6.92	1.08	26.06	30	11.69	32.83	24.98	298	0.09
100	5.71	33.31	6.68	1.32	26.28	50	6.82	33.22	26.06	195	0.14
201	5.88	33.87	5.13	1.48	26.70	75	5.80	33.34	26.29	174	0.19
302	4.43	33.88	3.32	1.82	26.87	100	5.71	33.31	26.28	175	0.23
409	3.85	33.99	2.27	2.20	27.02	125	5.68	33.45	26.39	165	0.28
512	3.82	34.08	1.49	2.30	27.10	150	5.69	33.59	26.50	154	0.32
614	3.70	34.17	1.04	2.73	27.18	200	5.87	33.86	26.69	136	0.39
816	3.24	34.32	0.75	2.82	27.34	250	5.22	33.90	26.80	126	0.46
1018	2.89	34.38	0.71	2.82	27.42	300	4.46	33.88	26.87	119	0.52
1211	2.63	34.44	0.69	2.91	27.49	400	3.87	33.97	27.00	106	0.63
						500	3.81	34.07	27.09	98	0.74
						600	3.72	34.15	27.16	91	0.84
						700	3.52	34.24	27.25	83	0.93
						800	3.28	34.31	27.33	75	1.02
						1000	2.92	34.37	27.41	68	1.17
						1200	2.64	34.43	27.48	61	1.31

101

HUGH M. SMITH; September 3, 1958; 2211 GCT; 44°42.5'N, 165°04.5'W; wind, 200°, 22 kt; weather, cloudy; sea, rough; wire angle, 05°.

0	12.94	32.98	6.02	1.00	24.86	0	12.94	32.98	24.86	310	0.00
25	12.81	33.02	6.23	1.00	24.92	10	12.89	32.99	24.88	308	0.03
45	9.52	33.39	6.35	1.32	25.80	20	12.84	33.01	24.90	306	0.06
66	8.96	33.77	6.15	1.32	26.18	30	12.60	33.09	25.01	295	0.09
96	8.35	33.88	6.02	1.48	26.36	50	9.25	33.49	25.92	209	0.14
223	7.10	33.95	4.97	1.48	26.60	75	8.90	33.83	26.24	179	0.19
335	5.27	33.91	3.64	1.56	26.80	100	8.30	33.88	26.37	166	0.23
452	4.25	33.95	2.57	2.82	26.95	125	8.01	33.93	26.45	159	0.28
563	4.00	34.08	1.65	1.82	27.08	150	7.12	33.95	26.60	145	0.31
675	3.81	34.19	1.13	3.17	27.18	200	7.50	33.96	26.55	149	0.39
891	3.25	34.35	0.75	3.00	27.37	250	6.65	33.94	26.65	140	0.46
1103	2.86	34.38	0.68	3.17	27.43	300	5.83	33.92	26.74	131	0.53
1302	2.59	34.45	0.60	3.09	27.50	400	4.60	33.92	26.89	117	0.66
						500	4.10	34.00	27.00	106	0.78
						600	3.94	34.11	27.11	97	0.88
						700	3.75	34.21	27.21	87	0.98
						800	3.49	34.29	27.29	79	1.07
						1000	3.03	34.37	27.40	69	1.23
						1200	2.73	34.41	27.46	63	1.37

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

CHARLES H. GILBERT; January 22, 1958; 0854 GCT; 21°10'N, 158°18'W; wind, 180°, 12 kt; weather, missing; wire angle, 16°. 15

0	24.46	34.81	4.79	0.12	23.38	0	24.46	34.81	23.38	451	0.00
23	24.32	34.85	4.58	0.12	23.45	10	24.40	34.83	23.41	448	0.04
47	24.23	34.88	4.58	0.11	23.50	20	24.34	34.84	23.44	446	0.09
72	23.14	35.16	4.66	0.14	24.03	30	24.34	34.85	23.45	446	0.13
95	21.54	35.12	4.65	0.16	24.46	50	24.14	34.92	23.56	436	0.22
134	20.04	35.07	4.24	0.13	24.82	75	22.93	35.16	24.10	386	0.32
179	17.63	34.83	4.25	0.33	25.25	100	21.32	35.12	24.51	346	0.42
219	15.87	34.60	4.30	0.43	25.49	125	20.34	35.09	24.76	324	0.50
259	13.70	34.38	4.27	0.43	25.79	150	19.20	35.00	24.99	303	0.58
298	11.58	34.31	4.28	0.96	26.15	200	16.71	34.71	25.38	267	0.72
400	8.21	34.14	2.75	1.67	26.59	250	14.21	34.42	25.72	235	0.85
499	7.13	34.99	1.55	1.38	27.41	300	11.49	34.30	26.16	193	0.95
						400	8.21	34.14	26.59	153	1.13

CHARLES H. GILBERT; January 22, 1958; 1536 GCT; 21°11'N, 158°19'W; wind, 210°, 13 kt; weather, missing; wire angle, 11-17°. 16

0	24.45	34.85	4.69	0.13	23.41	0	24.45	34.85	23.41	448	0.00
24	24.47	34.87	4.60	0.16	23.42	10	24.46	34.86	23.42	448	0.04
48	24.24	34.97	4.62	0.16	23.57	20	24.47	34.87	23.42	448	0.09
74	23.87	35.16	4.62	0.12	23.82	30	24.43	34.89	23.45	446	0.13
98	22.17	35.14	4.70	0.12	24.30	50	24.24	34.99	23.58	434	0.22
138	20.52	35.17	4.41	0.16	24.77	75	23.81	35.16	23.84	410	0.33
182	18.77	35.01	4.37	0.30	25.11	100	22.07	35.14	24.33	365	0.42
222	15.72	34.63	4.33	0.50	25.55	125	20.97	35.16	24.65	335	0.51
262	13.06	34.31	4.15	0.67	25.87	150	20.12	35.15	24.86	315	0.59
301	11.34	34.22	4.05	1.07	26.13	200	17.46	34.85	25.31	274	0.74
403	7.98	34.20	2.66	1.91	26.67	250	13.79	34.39	25.78	229	0.87
500	6.52	34.27	1.48	1.38	26.93	300	11.38	34.22	26.12	197	0.97
						400	8.05	34.20	26.66	146	1.14
						500	6.52	34.27	26.93	120	1.28

HUGH M. SMITH; February 28, 1958; 0230 GCT; 21°10'N, 158°19'W; wind, 160°, 10 kt; weather, partly cloudy; wire angle, 05°. 17

0	24.44	35.03	4.85	0.22	23.55	0	24.44	35.03	23.55	434	0.00
24	23.87	34.96	4.81	0.18	23.67	10	24.20	35.00	23.60	430	0.04
55	23.52	35.03	4.86	0.17	23.83	20	23.96	34.97	23.65	426	0.09
80	22.88	35.14	4.89	0.23	24.09	30	23.80	34.96	23.69	422	0.13
106	22.16	35.14	4.74	0.18	24.30	50	23.58	35.01	23.79	414	0.21
163	19.10	34.99	4.31	0.52	25.01	75	23.02	35.12	24.04	391	0.31
207	16.74	34.78	4.32	0.61	25.43	100	22.35	35.15	24.25	372	0.41
270	13.03	34.33	4.22	0.93	25.89	125	21.25	35.11	24.53	346	0.50
321	10.84	34.16	3.92	1.27	26.17	150	19.89	35.04	24.84	317	0.58
377	9.08	34.18	2.90	1.20	26.48	200	17.12	34.82	25.37	268	0.73
427	8.07	34.23	2.24	2.43	26.68	250	14.17	34.47	25.76	231	0.85
528	6.51	34.27	1.16	2.99	26.93	300	11.66	34.21	26.06	203	0.96
						400	8.57	34.20	26.58	154	1.14
						500	6.94	34.26	26.86	127	1.28

HUGH M. SMITH; February 28, 1958; 1000 GCT; 21°10'N, 158°19'W; wind, 180°, 17 kt; weather, cloudy; wire angle, 28°. 18

0	23.46	35.05	4.84	0.20	23.86	0	23.46	35.05	23.86	405	0.00
22	23.46	35.03	4.81	0.21	23.84	10	23.46	35.04	23.85	406	0.04
42	23.45	35.09	4.83	0.18	23.89	20	23.46	35.03	23.84	408	0.08
63	23.27	35.12	4.85	0.32	23.97	30	23.47	35.05	23.86	407	0.12
83	23.08	35.12	4.88	0.18	24.02	50	23.39	35.10	23.92	402	0.20
126	22.40	35.21	4.86	0.27	24.28	75	23.16	35.12	24.00	395	0.30
173	20.14	35.12	4.44	0.32	24.84	100	22.91	35.16	24.10	386	0.40
216	18.22	34.83	4.25	0.61	25.11	125	22.43	35.21	24.28	370	0.50
257	15.37	34.56	4.26	0.53	25.57	150	21.33	35.19	24.57	343	0.58
300	12.08	34.27	4.13	0.92	26.03	200	18.99	34.95	25.00	303	0.75
343	10.09	34.18	3.44	1.49	26.32	250	15.90	34.61	25.49	258	0.89
432	7.53	34.18	2.58	1.97	26.72	300	12.08	34.27	26.03	206	1.00
						400	8.45	34.18	26.58	153	1.18

	OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
	Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
	m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
19	HUGH M. SMITH; March 24, 1958; 2154 GCT; 21°10'N, 158°21'W; wind, 320°, 2 kt; weather, partly cloudy; wire angle, 05°.											
	0	23.88	34.94	4.60	0.64	23.65	0	23.88	34.94	23.65	425	0.00
	25	23.75	34.90	4.60	0.68	23.66	10	23.83	34.92	23.66	425	0.04
	55	23.66	34.96	4.61	3.60	23.73	20	23.78	34.91	23.66	425	0.08
	80	23.56	35.03	4.55	1.79	23.81	30	23.73	34.90	23.67	425	0.13
	105	23.08	35.14	4.55	1.65	24.04	50	23.67	34.94	23.72	421	0.21
	159	20.06	35.07	4.25	2.37	24.82	75	23.60	35.01	23.79	415	0.32
	209	17.84	34.87	4.30	1.93	25.23	100	23.21	35.12	23.98	397	0.42
	267	11.56	34.25	3.84	1.26	26.11	125	22.08	35.15	24.33	366	0.51
	318	9.76	34.25	3.31	1.46	26.43	150	20.64	35.10	24.69	332	0.60
	374	8.45	34.20	2.98	0.83	26.60	200	18.33	34.92	25.15	289	0.76
	426	7.63	34.18	2.62	1.67	26.71	250	13.37	34.42	25.89	219	0.88
	532	6.53	34.25	1.53	0.94	26.91	300	10.16	34.22	26.34	176	0.98
							400	8.00	34.19	26.66	146	1.14
							500	6.86	34.23	26.85	128	1.28
20	HUGH M. SMITH; March 25, 1958; 0500 GCT; 21°10'N, 158°18'W; wind, 130°, 10 kt; weather, partly cloudy; wire angle, 25°.											
	0	24.14	34.96	4.66	1.60	23.59	0	24.14	34.96	23.59	431	0.00
	22	23.78	34.90	4.59	0.98	23.65	10	23.98	34.93	23.62	429	0.04
	49	23.74	34.97	4.68	2.42	23.72	20	23.81	34.90	23.65	426	0.09
	72	23.56	35.07	4.53	1.61	23.84	30	23.75	34.91	23.67	425	0.13
	93	23.22	35.08	4.63	0.56	23.95	50	23.74	34.98	23.72	420	0.21
	142	21.32	35.08	4.52	0.76	24.49	75	23.53	35.07	23.86	408	0.32
	187	18.62	34.94	4.31	-	25.09	100	23.03	35.09	24.01	395	0.42
	237	16.61	34.74	4.14	1.03	25.43	125	22.13	35.09	24.27	371	0.51
	283	13.32	34.34	3.08	0.59	25.84	150	20.84	35.06	24.60	340	0.60
	331	10.98	34.23	-	-	26.20	200	18.13	34.90	25.18	286	0.76
	376	8.96	34.22	2.38	-	26.53	250	15.70	34.62	25.54	252	0.89
							300	12.42	34.28	25.97	212	1.01
21	MAKUA; April 21, 1958; 2130 GCT; 21°10'N, 158°19'W; wind, 330°, 13 kt; weather, partly cloudy; wire angle, 00°.											
	0	23.32	35.10			23.94	0	23.32	35.10	23.94	398	0.00
	24	22.83	35.17			24.13	10	23.12	35.13	24.02	391	0.04
	49	21.75	35.26			24.50	20	22.91	35.16	24.10	383	0.08
	74	20.60	35.25			24.81	30	22.60	35.20	24.22	372	0.12
	120	19.51	35.17			25.04	50	21.70	35.26	24.52	344	0.19
	152	18.71	35.08			25.17	75	20.57	35.25	24.82	317	0.27
	203	15.93	34.67			25.53	100	19.91	35.21	24.97	303	0.35
	254	13.33	34.43			25.90	125	19.41	35.16	25.06	296	0.42
	281	12.46	34.27			25.95	150	18.77	35.09	25.17	286	0.50
	305	11.20	34.20			26.14	200	16.12	34.70	25.51	255	0.63
	411	8.05	34.11			26.59	250	13.51	34.45	25.88	220	0.75
	523	6.64	34.22			26.87	300	11.47	34.21	26.09	200	0.85
							400	8.24	34.11	26.56	156	1.03
							500	6.93	34.20	26.82	131	1.18

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
MAKUA; April 22, 1958; 0412 GCT; 21°10'N, 158°19'W; wind, 330°, 10 kt; weather, partly cloudy; wire angle, 00°.											22
0	23.39	35.07			23.89	0	23.39	35.07	23.89	402	0.00
26	23.02	35.10			24.02	10	23.25	35.08	23.94	398	0.04
48	22.68	34.92			23.99	20	23.11	35.09	23.99	393	0.08
73	21.26	35.21			24.60	30	22.99	35.06	24.00	393	0.12
118	19.55	35.07			24.95	50	22.58	34.94	24.03	391	0.20
150	19.30	35.17			25.09	75	21.16	35.21	24.63	335	0.29
200	17.53	34.83			25.28	100	20.07	35.16	24.88	312	0.37
252	14.18	34.47			25.76	125	19.49	35.10	24.99	302	0.45
277	12.93	34.38			25.95	150	19.30	35.17	25.09	293	0.52
303	11.83	34.29			26.09	200	17.53	34.83	25.28	277	0.66
412	8.90	34.20			26.53	250	14.31	34.48	25.74	233	0.79
519	6.78	34.29			26.91	300	11.95	34.30	26.07	202	0.90
						400	9.14	34.19	26.49	163	1.08
						500	7.16	34.27	26.85	129	1.23
CHARLES H. GILBERT; May 30, 1958; 2130 GCT; 21°10'N, 158°18'W; wind, 080°, 13 kt; weather, partly cloudy; wire angle, 17°.											24
0	24.76	34.81			23.29	0	24.76	34.81	23.29	460	0.00
35	24.64	34.78			23.31	10	24.73	34.80	23.30	460	0.05
74	23.52	34.99			23.80	20	24.69	34.79	23.30	460	0.09
114	22.14	35.13			24.30	30	24.66	34.78	23.30	460	0.14
168	19.40	35.06			24.98	50	24.28	34.85	23.46	445	0.23
225	16.37	34.70			25.45	75	23.49	35.00	23.81	413	0.34
281	12.28	34.32			26.03	100	22.67	35.10	24.12	384	0.44
335	10.00	34.19			26.34	125	21.63	35.14	24.45	354	0.53
						150	20.38	35.12	24.77	324	0.61
						200	17.78	34.88	25.25	279	0.76
						250	14.50	34.52	25.73	235	0.89
						300	11.48	34.27	26.14	195	1.00
CHARLES H. GILBERT; May 30, 1958; 2300 GCT; 21°10'N, 158°19'W; wind, 080°, 13 kt; weather, partly cloudy; wire angle, 16-22°.											25
0	24.85	34.85			23.29	0	24.85	34.85	23.29	459	0.00
32	25.10	34.79			23.17	10	24.93	34.83	23.26	463	0.05
67	24.09	34.88			23.54	20	25.01	34.81	23.22	467	0.09
102	22.54	35.13			24.18	30	25.08	34.79	23.18	471	0.14
154	20.70	35.11			24.68	50	24.70	34.82	23.31	459	0.23
205	17.60	34.82			25.25	75	23.75	34.94	23.69	424	0.34
258	14.07	34.39			25.72	100	22.63	35.12	24.15	382	0.44
308	11.05	34.20			26.16	125	21.77	35.17	24.43	356	0.54
						150	20.86	35.12	24.65	336	0.62
						200	17.94	34.86	25.20	284	0.78
						250	14.60	34.45	25.65	242	0.91
						300	11.53	34.23	26.10	199	1.02
CHARLES H. GILBERT; May 31, 1958; 0106 GCT; 21°10'N, 158°19'W; wind, 060°, 19 kt; weather, cloudy; wire angle, 40°.											26
0	24.79	34.77	4.62	0.62	23.25	0	24.79	34.77	23.25	463	0.00
27	24.64	34.76	4.65	0.29	23.29	10	24.73	34.77	23.27	462	0.05
56	24.39	34.80	4.64	0.34	23.40	20	24.68	34.76	23.28	461	0.09
79	22.92	35.11	4.63	0.23	24.06	30	24.66	34.75	23.28	462	0.14
121	21.67	35.17	4.76	0.11	24.46	50	24.52	34.77	23.34	457	0.23
162	18.92	35.04	4.48	0.39	25.09	75	23.20	35.05	23.94	401	0.34
203	16.70	34.80	4.41	2.30	25.45	100	22.28	35.19	24.31	366	0.43
245	14.31	34.47	4.32	0.15	25.73	125	21.42	35.16	24.52	347	0.52
288	11.83	34.23	4.28	0.78	26.04	150	19.78	35.09	24.91	310	0.60
332	10.26	34.17	4.25	1.33	26.28	200	16.86	34.82	25.43	262	0.75
377	8.59	34.12	3.20	1.24	26.51	250	14.00	34.44	25.77	230	0.87
422	7.66	34.14	2.34	2.78	26.67	300	11.36	34.20	26.11	198	0.98
						400	8.11	34.13	26.59	152	1.15

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
27	CHARLES H. GILBERT; June 22, 1958; 0530 GCT; 21°11'N, 158°18'W; wind, 080°, 17 kt; weather, partly cloudy; wire angle, 11°.										
0	25.90	34.82	4.18		22.95	0	25.90	34.82	22.95	492	0.00
33	25.58	34.84	4.14		23.06	10	25.80	34.83	22.98	489	0.05
51	24.76	34.93	4.29		23.38	20	25.71	34.83	23.02	486	0.10
105	22.53	35.08	4.22		24.15	30	25.61	34.84	23.05	484	0.15
154	20.44	35.17	4.03		24.79	50	24.81	34.92	23.36	455	0.24
208	17.67	34.84	3.85		25.25	75	23.75	35.01	23.74	419	0.35
256	14.79	34.48	3.86		25.64	100	22.73	35.07	24.08	388	0.45
310	10.73	34.16	3.54		26.19	125	21.71	35.14	24.43	356	0.54
359	9.17	34.14	2.98		26.44	150	20.62	35.17	24.75	326	0.63
408	8.08	34.12	2.48		26.59	200	18.11	34.91	25.19	285	0.78
462	7.41	34.16	1.75		26.72	250	15.18	34.52	25.59	248	0.92
512	6.76	34.22	1.48		26.86	300	11.42	34.20	26.10	199	1.03
						400	8.23	34.12	26.57	154	1.20
						500	6.92	34.21	26.83	131	1.35
28	CHARLES H. GILBERT; June 22, 1958; 1254 GCT; 21°11'N, 158°19'W; wind, 040°, 10 kt; weather, partly cloudy; wire angle, 02°.										
0	25.89	34.90	4.08		23.01	0	25.89	34.90	23.01	486	0.00
32	25.15	34.88	4.20		23.23	10	25.66	34.89	23.08	480	0.05
51	23.97	35.05	4.27		23.71	20	25.43	34.89	23.15	474	0.10
103	21.00	35.16	4.13		24.64	30	25.20	34.88	23.21	468	0.14
153	19.28	35.07	3.94		25.02	50	24.04	35.04	23.68	424	0.23
205	16.14	34.67	3.87		25.48	75	22.50	35.15	24.21	375	0.33
258	12.62	34.28	4.08		25.93	100	21.15	35.16	24.60	339	0.42
311	10.02	34.16	3.34		26.31	125	20.25	35.15	24.83	318	0.50
365	8.22	34.13	2.58		26.58	150	19.39	35.08	25.00	302	0.58
416	7.66	34.17	1.93		26.69	200	16.48	34.72	25.44	261	0.72
469	6.98	34.20	1.46		26.81	250	13.13	34.33	25.87	221	0.84
524	6.49	34.28	1.32		26.94	300	10.49	34.17	26.24	185	0.94
						400	7.78	34.15	26.66	145	1.11
						500	6.70	34.24	26.89	125	1.24
29	HUGH M. SMITH; July 22, 1958; 0536 GCT; 21°11'N, 158°19'W; wind, 120°, 18 kt; weather, partly cloudy; wire angle, 08°.										
0	26.10	34.80	4.80	0.70	22.87	0	26.10	34.80	22.87	500	0.00
25	25.88	34.83	4.78	0.35	22.96	10	26.01	34.81	22.91	496	0.05
50	25.86	34.80	4.80	0.36	22.95	20	25.92	34.82	22.95	493	0.10
73	25.84	34.79	4.80	0.40	22.95	30	25.87	34.83	22.96	492	0.15
98	23.92	34.98	5.05	0.22	23.67	50	25.86	34.80	22.95	494	0.25
148	21.51	35.15	4.95	0.23	24.49	75	25.71	34.80	22.99	491	0.37
194	17.82	34.73	4.33	0.46	25.13	100	23.82	35.00	23.71	423	0.48
292	12.28	34.24	4.47	0.94	25.97	125	22.60	35.13	24.17	381	0.58
390	9.42	34.11	4.05	1.51	26.37	150	21.36	35.14	24.52	348	0.68
486	7.17	34.18	1.81	3.01	26.77	200	17.40	34.69	25.20	284	0.83
584	6.12	34.25	1.09	3.18	26.97	250	14.30	34.39	25.68	239	0.96
680	5.42	34.33	0.82	-	27.12	300	11.99	34.22	26.00	208	1.08
777	4.98	34.40	0.89	3.51	27.22	400	9.14	34.11	26.42	169	1.27
969	4.18	34.47	1.13	3.54	27.37	500	6.97	34.19	26.81	133	1.42
1350	3.20	34.55	1.51	3.37	27.53	600	5.98	34.26	26.99	115	1.54
						700	5.32	34.35	27.14	102	1.65
						800	4.88	34.41	27.24	92	1.75
						1000	4.10	34.48	27.38	80	1.92
						1200	3.59	34.52	27.47	72	2.07

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HUGH M. SMITH; July 22, 1958; 1236 GCT; 21°11'N, 158°19'W; wind, 080°, 12 kt; weather, missing; wire angle, 01°.											30
0	25.93	34.81	4.77	0.49	22.93	0	25.93	34.81	22.93	494	0.00
26	25.93	34.81	4.78	0.50	22.93	10	25.93	34.81	22.93	494	0.05
51	24.64	34.91	5.03	0.49	23.40	20	25.93	34.81	22.93	495	0.10
75	22.82	35.06	5.01	0.32	24.05	30	25.79	34.82	22.99	490	0.15
101	21.99	35.17	4.99	0.43	24.37	50	24.71	34.90	23.38	453	0.24
146	20.07	35.11	4.65	0.51	24.85	75	22.82	35.06	24.05	390	0.35
198	17.86	34.86	4.49	0.58	25.22	100	22.01	35.17	24.36	361	0.44
300	11.48	34.26	4.52	1.46	26.13	125	21.00	35.17	24.64	336	0.53
406	8.17	34.15	2.60	2.40	26.60	150	19.91	35.10	24.88	314	0.61
504	6.64	34.24	1.43	2.01	26.89	200	17.73	34.85	25.24	280	0.76
						250	14.58	34.53	25.72	235	0.89
						300	11.48	34.26	26.13	196	1.00
						400	8.29	34.15	26.58	153	1.17
						500	6.70	34.24	26.88	125	1.31
CHARLES H. GILBERT; August 20, 1958; 1200 GCT; 21°10'N, 158°19'W; wind, 080°, 12 kt; weather, partly cloudy; wire angle, 12-15°.											31
0	26.70	34.91	4.43	0.39	22.77	0	26.70	34.91	22.77	510	0.00
23	26.75	34.88	4.44	0.14	22.73	10	26.72	34.90	22.75	512	0.05
48	26.61	34.87	4.48	0.16	22.77	20	26.74	34.88	22.73	514	0.10
72	24.45	34.89	4.69	0.15	23.45	30	26.83	34.87	22.70	517	0.15
95	23.36	35.04	4.70	0.13	23.88	50	26.45	34.87	22.82	507	0.26
199	17.23	34.75	4.16	0.61	25.29	75	24.28	34.91	23.51	442	0.38
297	10.66	34.19	3.92	0.61	26.23	100	23.10	35.05	23.96	399	0.48
338	9.13	34.14	3.67	0.81	26.44	125	21.74	35.05	24.35	363	0.58
401	7.56	34.11	2.70	0.98	26.66	150	20.29	35.00	24.71	330	0.66
499	6.54	34.24	1.14	1.49	26.90	200	17.15	34.74	25.30	274	0.81
						250	13.60	34.44	25.85	222	0.94
						300	10.53	34.18	26.24	185	1.04
						400	7.58	34.11	26.66	146	1.20
CHARLES H. GILBERT; August 20, 1958; 1912 GCT; 21°10'N, 158°18'W; wind, 080°, 11 kt; weather, partly cloudy; wire angle, 25°.											32
0	26.71	34.89	4.55	0.22	22.75	0	26.71	34.89	22.75	511	0.00
21	26.72	34.91	4.59	0.22	22.76	10	26.71	34.90	22.75	511	0.05
42	26.38	34.88	4.71	0.27	22.85	20	26.72	34.91	22.76	511	0.10
64	24.72	34.90	4.84	0.24	23.37	30	26.67	34.90	22.77	511	0.15
86	23.82	35.05	4.89	0.20	23.75	50	25.81	34.88	23.02	487	0.25
129	21.25	35.01	4.63	0.27	24.45	75	24.24	34.97	23.57	436	0.37
177	19.44	34.97	4.35	0.61	24.90	100	22.99	35.06	24.00	396	0.47
263	15.52	34.58	4.21	0.78	25.55	125	21.49	35.02	24.40	359	0.57
357	10.84	34.22	4.12	0.65	26.22	150	20.41	35.00	24.67	333	0.65
447	7.96	34.11	3.12	0.99	26.60	200	18.45	34.88	25.09	295	0.81
						250	16.15	34.65	25.46	260	0.95
						300	13.60	34.42	25.84	225	1.07
						400	9.46	34.17	26.41	170	1.27
CHARLES H. GILBERT; September 26, 1958; 0112 GCT; 21°10'N, 158°18'W; wind, 090°, 8 kt; weather, partly cloudy; wire angle, 27°.											33
0	26.86	34.87	4.64		22.69	0	26.86	34.87	22.69	517	0.00
22	26.66	34.86	4.77		22.74	10	26.77	34.86	22.71	515	0.05
47	26.70	34.87	4.65		22.74	20	26.68	34.86	22.74	513	0.10
69	26.62	34.87	4.58		22.76	30	26.66	34.86	22.74	513	0.15
95	23.94	34.95	4.73		23.64	50	26.75	34.87	22.72	516	0.26
143	20.50	35.02	4.56		24.66	75	26.10	34.89	22.94	496	0.38
191	18.20	34.82	4.39		25.10	100	23.51	34.97	23.78	417	0.50
286	13.12	34.24	4.32		25.80	125	21.61	35.02	24.36	362	0.60
387	9.31	34.04	3.80		26.34	150	20.13	35.00	24.75	326	0.68
484	7.16	34.12	2.13		26.73	200	17.70	34.76	25.18	286	0.83
						250	15.00	34.45	25.57	250	0.97
						300	12.50	34.19	25.89	220	1.09
						400	9.02	34.05	26.39	172	1.28

	OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
	Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
	m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
34	CHARLES H. GILBERT; September 26, 1958; 0718 GCT; 21°10'N, 158°19'W; wind, 070°, 8 kt; weather, partly cloudy; wire angle, 03°.											
	0	26.63	34.86	4.55		22.75	0	26.63	34.86	22.75	511	0.00
	25	26.64	34.93	4.59		22.80	10	26.63	34.89	22.77	510	0.05
	54	26.62	34.91	4.61		22.79	20	26.64	34.92	22.79	508	0.10
	78	24.58	34.90	4.82		23.41	30	26.73	34.93	22.77	510	0.15
	163	19.00	34.95	4.53		25.00	50	26.70	34.92	22.77	511	0.26
	218	16.14	34.61	4.43		25.43	75	24.88	34.90	23.32	459	0.38
	329	10.96	34.23	4.30		26.20	100	22.95	34.94	23.92	403	0.48
	553	6.03	34.29	0.97		27.01	125	21.25	34.96	24.42	357	0.58
							150	19.72	34.96	24.82	319	0.66
							200	17.03	34.73	25.32	273	0.81
							250	14.51	34.47	25.68	239	0.94
							300	12.19	34.30	26.03	206	1.05
							400	9.40	34.25	26.49	163	1.24
							500	7.20	34.28	26.84	129	1.38
35	MAKUA; October 21, 1958; 2200 GCT; 21°10'N, 158°19'W; wind, 090°, 12 kt; weather, cloudy; wire angle, 07°.											
	0	26.02	34.96	4.40	0.23	23.02	0	26.02	34.96	23.02	486	0.00
	25	26.00	34.93	4.47	0.21	23.00	10	26.01	34.95	23.01	487	0.05
	56	25.94	34.92	4.55	0.22	23.01	20	26.00	34.94	23.01	488	0.10
	81	25.99	34.93	4.52	0.27	23.01	30	25.99	34.93	23.00	488	0.15
	112	23.27	34.92	4.70	0.27	23.82	50	25.95	34.92	23.01	488	0.24
	162	20.49	34.97	4.43	0.34	24.63	75	26.07	34.93	22.98	492	0.37
	217	17.68	34.76	4.28	0.61	25.19	100	24.46	34.92	23.47	447	0.48
	272	14.35	34.32	3.93	0.86	25.61	125	22.44	34.94	24.07	390	0.59
	297	13.27	34.30	3.91	0.92	25.82	150	21.06	34.96	24.47	352	0.68
	327	11.45	34.15	3.62	1.29	26.05	200	18.56	34.85	25.04	300	0.84
	429	7.91	34.11	2.77	2.36	26.61	250	15.63	34.48	25.45	262	0.98
	534	6.85	34.20	1.29	1.90	26.83	300	13.09	34.29	25.84	224	1.11
							400	8.58	34.08	26.48	163	1.30
							500	7.19	34.17	26.76	137	1.45
36	MAKUA; October 22, 1958; 0454 GCT; 21°10'N, 158°19'W; wind, 090°, 12 kt; weather, cloudy; wire angle, 12°.											
	0	25.97	34.94		0.21	23.02	0	25.97	34.94	23.02	486	0.00
	20	26.00	34.91		0.17	22.99	10	25.98	34.92	23.00	488	0.05
	44	25.98	35.00		0.18	23.06	20	26.00	34.91	22.99	490	0.10
	70	25.98	34.92		0.19	23.00	30	25.99	34.95	23.02	487	0.15
	100	23.94	34.87		0.26	23.58	50	26.05	34.99	23.03	487	0.24
	149	21.39	35.04		0.30	24.44	75	25.70	34.91	23.08	483	0.36
	199	18.81	34.86		0.43	24.98	100	23.94	34.87	23.58	436	0.48
	253	14.00	34.35		0.86	25.70	125	22.58	34.96	24.04	392	0.58
	278	12.87	34.56		0.89	26.10	150	21.35	35.04	24.45	355	0.68
	303	11.27	34.16		1.11	26.09	200	18.72	34.85	24.99	304	0.84
	401	7.98	34.17		1.93	26.65	250	14.25	34.36	25.66	240	0.98
	503	6.70	34.19		0.85	26.84	300	11.47	34.22	26.10	199	1.09
							400	8.00	34.16	26.64	148	1.26
							500	6.74	34.19	26.84	129	1.40

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

HUGH M. SMITH; November 21, 1958; 0430, 0518 GCT; 21°12'N, 158°20'W; wind, 030°, 19 kt; weather, cloudy; wire angle, 16°, 27°. 37

0	25.98	34.96	0.11	23.03	0	25.98	34.96	23.03	484	0.00
24	25.97	34.97	0.04	23.04	10	25.98	34.96	23.04	484	0.05
48	25.76	34.97	0.02	23.11	20	25.97	34.97	23.04	484	0.10
73	25.44	34.99	0.06	23.22	30	25.93	34.97	23.05	484	0.14
97	23.47	35.01	-	23.83	50	25.77	34.97	23.10	479	0.24
150	20.66	35.06	0.06	24.65	75	25.30	34.99	23.26	465	0.36
198	18.02	34.85	0.35	25.17	100	23.28	35.02	23.88	407	0.47
247	15.09	34.50	0.62	25.59	125	21.86	35.05	24.32	366	0.56
271	13.55	34.37	0.80	25.81	150	20.66	35.06	24.65	335	0.65
295	11.68	34.24	0.62	26.08	200	17.91	34.84	25.19	285	0.81
396	8.48	34.17	1.79	26.57	250	14.91	34.48	25.61	246	0.94
492	7.00	34.22	0.80	26.83	300	11.42	34.23	26.12	198	1.05
					400	8.35	34.17	26.59	153	1.23
452a)	7.12	34.19	0.97	26.79	500	6.94	34.23	26.84	129	1.37
645	5.62	34.34	0.79	27.10	600	6.07	34.30	27.02	113	1.49
838	4.66	34.47	0.88	27.32	700	5.33	34.38	27.17	99	1.60
920	4.10	34.49	0.86	27.39	800	4.83	34.45	27.28	89	1.69
936	3.95	34.49	0.86	27.41	1000	3.67	34.50	27.44	73	1.85
1317	3.42	34.57	0.82	27.52	1200	3.30	34.54	27.51	67	1.99
1607	2.70	34.58	1.59	27.60	1500	2.97	34.58	27.57	62	2.18
1883	2.26	34.64	0.87	27.68						
1893	2.18	34.66	1.20	27.71						

HUGH M. SMITH; November 21, 1958; 1124 GCT; 21°10'N, 158°20'W; wind, 360°, 28 kt; weather, missing; wire angle, 34°. 38

0	25.81	34.94	0.10	23.07	0	25.81	34.94	23.07	481	0.00
20	25.84	34.97	0.08	23.08	10	25.82	34.96	23.08	481	0.05
42	25.80	34.97	0.12	23.09	20	25.84	34.97	23.08	480	0.10
64	25.72	34.96	0.11	23.11	30	25.83	34.97	23.09	480	0.14
85	24.46	35.02	0.13	23.54	50	25.85	34.96	23.07	482	0.24
132	21.28	35.05	-	24.48	75	25.14	34.99	23.31	461	0.36
174	19.06	34.51	0.30	24.65	100	23.43	35.07	23.88	407	0.47
219	16.80	34.67	0.46	25.33	125	21.75	35.07	24.36	362	0.56
239	15.69	34.35	0.52	25.34	150	20.29	34.81	24.56	344	0.65
261	13.82	34.16	0.48	25.60	200	17.77	34.63	25.07	297	0.81
352	10.44	34.19	1.25	26.26	250	14.77	34.24	25.45	260	0.95
439	7.60	34.95	2.20	27.31	300	11.92	34.04	25.88	220	1.07
					400	8.87	34.61	26.85	128	1.24

HUGH M. SMITH; December 19, 1958; 0300 GCT; 21°10'N, 158°19'W; wind, 070°, 14 kt; weather, partly cloudy; wire angle, 20°. 39

0	24.84	34.94	23.37	0	24.84	34.94	23.37	452	0.00
7	24.81	34.94	23.37	10	24.56	34.95	23.46	444	0.04
13	24.28	34.96	23.55	20	24.01	35.03	23.68	423	0.09
22	24.02	35.04	23.69	30	24.58	34.95	23.45	446	0.13
30	24.58	34.95	23.45	50	23.95	34.99	23.67	425	0.22
50	23.95	34.99	23.67	75	23.16	35.10	23.98	396	0.32
63	23.40	35.09	23.91	100	22.68	35.05	24.09	388	0.42
108	22.54	35.02	24.10	125	21.79	35.02	24.31	367	0.51
138	21.22	35.02	24.47	150	21.00	35.02	24.53	347	0.60
193	20.39	35.01	24.69	200	20.16	35.00	24.74	328	0.77
289	16.24	34.81	25.56	250	18.17	34.92	25.19	287	0.93
362	12.65	34.45	26.06	300	15.56	34.74	25.67	242	1.06
380	12.50	34.45	26.08						

a) Overlapping cast.

	OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
	Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
	m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
40	HUGH M. SMITH; December 19, 1958; 0500 GCT; 21°10'N, 158°20'W; wind, 060°, 15 kt; weather, partly cloudy; wire angle, 26°.											
	0	24.63	34.99			23.47	0	24.63	34.99	23.47	443	0.00
	20	24.52	35.01			23.51	10	24.57	35.00	23.49	441	0.04
	40	24.04	35.05			23.69	20	24.52	35.01	23.51	439	0.09
	60	23.96	35.12			23.76	30	24.28	35.03	23.60	431	0.13
	80	23.67	35.11			23.84	50	23.99	35.09	23.73	419	0.22
	121	22.00	35.05			24.28	75	23.77	35.12	23.82	412	0.32
	165	19.92	35.05			24.84	100	22.96	35.08	24.03	393	0.42
	206	18.03	34.88			25.19	125	21.82	35.05	24.33	365	0.52
	227	15.82	34.56			25.47	150	20.64	35.06	24.65	335	0.60
	248	14.53	34.48			25.69	200	18.41	34.93	25.14	290	0.76
	335	10.56	34.16			26.22	250	14.42	34.47	25.71	236	0.89
	420	8.16	34.11			26.57	300	11.93	34.27	26.06	204	1.00
							400	8.72	34.12	26.49	162	1.18
41	HUGH M. SMITH; December 19, 1958; 0700 GCT; 21°10'N, 158°21'W; wind, 060°, 16 kt; weather, partly cloudy; wire angle, 25°.											
	0	24.68	35.04			23.49	0	24.68	35.04	23.49	441	0.00
	23	24.30	35.07			23.63	10	24.51	35.05	23.55	435	0.04
	49	24.02	35.06			23.70	20	24.35	35.07	23.61	430	0.09
	71	23.86	35.16			23.82	30	24.21	35.06	23.65	427	0.13
	97	22.83	35.08			24.06	50	24.02	35.06	23.71	422	0.22
	145	20.74	35.08			24.64	75	23.73	35.15	23.86	409	0.32
	194	17.87	34.82			25.19	100	22.71	35.08	24.10	386	0.42
	243	14.78	34.44			25.61	125	21.67	35.08	24.39	359	0.51
	265	14.43	34.47			25.71	150	20.47	35.06	24.70	330	0.60
	292	12.98	34.34			25.91	200	17.41	34.76	25.25	279	0.75
	396	8.97	34.16			26.49	250	14.67	34.45	25.64	243	0.88
	495	6.98	34.21			26.82	300	12.59	34.31	25.96	213	0.99
							400	8.89	34.16	26.50	162	1.18
42	HUGH M. SMITH; December 19, 1958; 0830 GCT; 21°10'N, 158°20'W; wind, 060°, 16 kt; weather, partly cloudy; wire angle, 25°.											
	0	24.39	35.04			23.58	0	24.39	35.04	23.58	432	0.00
	23	24.22	35.06			23.64	10	24.32	35.05	23.61	430	0.04
	50	23.92	35.10			23.76	20	24.24	35.06	23.63	428	0.09
	72	23.51	35.13			23.90	30	24.16	35.07	23.67	425	0.13
	99	22.76	35.06			24.07	50	23.92	35.10	23.76	417	0.21
	149	20.86	35.09			24.62	75	23.44	35.12	23.92	402	0.32
	199	18.88	35.02			25.09	100	22.73	35.06	24.08	388	0.41
	249	15.62	34.60			25.54	125	21.82	35.07	24.34	364	0.51
	271	13.80	34.42			25.80	150	20.83	35.09	24.63	337	0.60
	299	13.00	34.33			25.89	200	18.83	35.01	25.09	294	0.75
	403	8.38	34.13			26.55	250	15.53	34.59	25.56	251	0.89
	504	6.95	34.25			26.86	300	12.95	34.33	25.90	219	1.01
							400	8.51	34.13	26.54	158	1.20
							500	7.01	34.24	26.84	129	1.34

OBSERVED					COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HUGH M. SMITH; December 19, 1958; 1018, 1112 GCT; 21°10'N, 158°20'W; wind, 060°, 13 kt; weather, partly cloudy; wire angle, 20°, 33°.											
0	24.06	35.05	4.64	0.35	23.68	0	24.06	35.05	23.68	422	0.00
23	24.10	35.08	4.51	-	23.69	10	24.08	35.06	23.69	422	0.04
50	24.00	35.06	4.70	0.34	23.71	20	24.09	35.08	23.69	422	0.08
73	23.87	35.13	4.65	0.37	23.80	30	24.08	35.07	23.69	422	0.13
101	23.31	35.13	4.59	0.27	23.96	50	24.00	35.06	23.71	422	0.21
152	20.75	35.10	4.43	0.47	24.66	75	23.85	35.13	23.81	413	0.32
203	18.96	35.00	4.32	0.34	25.05	100	23.34	35.13	23.96	400	0.42
254	15.81	34.58	4.22	0.58	25.49	125	22.18	35.12	24.28	370	0.51
277	14.02	34.42	4.21	0.71	25.75	150	20.86	35.10	24.63	338	0.60
305	12.74	34.32	4.12	0.87	25.94	200	19.07	35.01	25.03	301	0.76
413	8.42	34.14	3.11	1.86	26.56	250	16.10	34.62	25.45	262	0.90
515	6.75	34.22	1.17	2.53	26.86	300	12.93	34.33	25.91	218	1.02
						400	8.84	34.15	26.49	162	1.21
536	6.69	34.23	1.28	2.01	26.88	500	6.85	34.20	26.83	130	1.36
713	5.17	34.37	0.68	1.28	27.18	600	6.22	34.28	26.97	117	1.48
1361	2.99	34.57	1.28	1.27	27.56	700	5.31	34.36	27.15	100	1.59
1839	2.18	34.66	1.81	1.95	27.71	800	4.69	34.41	27.27	90	1.68
2143	1.96	34.48	1.00	2.37	27.58	1000	3.80	34.49	27.43	75	1.85
2414	1.80	34.66	2.26	2.25	27.74	1200	3.23	34.55	27.53	66	1.99
						1500	2.69	34.62	27.63	56	2.17
						2000	2.05	34.55	27.63	56	2.45

SBL

MV ATTU

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
ATTU; May 14, 1958; 1050 GCT; 56°00'N, 149°00'W; wind, 170°, 5 kt; weather, overcast; sea, smooth.											1
0	5.60	32.65	-	25.77	0	5.60	32.65		25.77	224	0.00
9	5.63	32.65	6.89	25.76	10	5.64	32.65	6.89	25.76	224	0.02
23	5.70	32.65	6.87	25.76	20	5.69	32.65	6.89	25.76	225	0.04
46	5.64	32.66	7.01	25.77	30	5.69	32.65	6.85	25.76	225	0.07
68	4.92	32.73	6.35	25.91	50	5.47	32.66	6.91	25.79	222	0.11
91	4.68	32.93	-	26.09	75	4.80	32.77	5.85	25.95	207	0.16
114	4.88	33.35	3.94	26.40	100	4.78	33.12	4.45	26.23	180	0.21
137	4.87	33.53	3.56	26.55	150	4.89	33.64	3.17	26.63	143	0.29
182	4.84	33.83	2.39	26.79	200	4.71	33.86	2.09	26.83	125	0.36
228	4.54	33.89	1.67	26.87	250	4.42	33.89	1.33	26.88	120	0.42
273	4.32	33.90	1.09	26.90	300	(4.25)	(33.91)	(0.95)	(26.92)	(117)	(0.48)
ATTU; May 14, 1958; 1512 GCT; 56°06'N, 149°50'W; wind, 170°, 5 kt; weather, overcast; sea, smooth.											2
0	5.70	32.66	-	25.76	0	5.70	32.66		25.76	224	0.00
10	5.66	32.66	7.09	25.77	10	5.66	32.66	7.09	25.77	224	0.02
25	5.70	32.66	7.01	25.76	20	5.70	32.66	7.01	25.76	224	0.04
50	5.58	32.66	7.02	25.78	30	5.70	32.66	7.01	25.76	224	0.07
75	4.70	32.74	6.76	25.94	50	5.58	32.66	7.02	25.78	223	0.11
100	4.63	32.91	6.20	26.08	75	4.70	32.74	6.76	25.94	208	0.16
125	4.70	33.22	5.31	26.32	100	4.63	32.91	6.20	26.08	194	0.22
150	4.86	33.60	3.82	26.60	150	4.86	33.60	3.82	26.60	146	0.30
200	4.35	33.86	1.68	26.87	200	4.35	33.86	1.68	26.87	121	0.37
250	4.11	33.94	1.05	26.95	250	4.11	33.94	1.05	26.95	113	0.43
300	4.14	33.99	0.81	26.99	300	4.14	33.99	0.81	26.99	110	0.48
ATTU; May 14, 1958; 1920 GCT; 56°14'N, 150°45'W; wind, 170°, 5 kt; weather, overcast; sea, smooth.											3
0	5.90	32.67	-	25.75	0	5.90	32.67		25.75	226	0.00
10	5.69	32.67	7.12	25.77	10	5.69	32.67	7.12	25.77	223	0.02
25	5.78	32.64	7.07	25.74	20	5.76	32.64	7.10	25.74	226	0.04
50	5.68	32.64	6.72	25.75	30	5.78	32.64	7.00	25.74	227	0.07
75	5.15	32.71	6.31	25.87	50	5.68	32.64	6.72	25.75	226	0.11
100	4.88	32.88	5.78	26.03	75	5.15	32.71	6.31	25.87	215	0.17
125	4.96	33.21	4.79	26.28	100	4.88	32.88	5.78	26.03	199	0.22
150	5.05	33.63	3.60	26.61	150	5.05	33.63	3.60	26.61	146	0.30
200	4.85	33.86	2.28	26.81	200	4.85	33.86	2.28	26.81	127	0.37
250	4.66	33.93	1.68	26.89	250	4.66	33.93	1.68	26.89	120	0.44
300	4.45	33.95	1.38	26.93	300	4.45	33.95	1.38	26.93	116	0.49
ATTU; May 14, 1958; 2320 GCT; 56°20'N, 151°40'W; wind, 170°, 5 kt; weather, overcast; sea, smooth.											4
0	6.50	32.71	-	25.70	0	6.50	32.71		25.70	230	0.00
10	6.11	32.66	6.44	25.71	10	6.11	32.66	6.44	25.71	229	0.02
25	6.10	32.66	6.99	25.72	20	6.12	32.66	6.90	25.71	229	0.05
50	5.78	32.66	5.98	25.75	30	6.08	32.66	6.63	25.72	229	0.07
75	4.86	32.69	6.90	25.88	50	5.78	32.66	5.98	25.75	225	0.11
100	4.76	32.93	5.98	26.09	75	4.86	32.69	6.90	25.88	213	0.17
125	4.85	33.31	4.49	26.38	100	4.76	32.93	5.98	26.09	194	0.22
150	4.70	33.56	3.49	26.59	150	4.70	33.56	3.49	26.59	147	0.30
200	4.88	33.85	2.17	26.80	200	4.88	33.85	2.17	26.80	128	0.37
250	4.78	33.90	1.48	26.85	250	4.78	33.90	1.48	26.85	123	0.44
300	4.53	33.96	1.24	26.93	300	4.53	33.96	1.24	26.93	117	0.50

SBL

MV ATTU

	OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
	Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
	m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
5	ATTU; May 18, 1958; 2233 GCT; 53°30'N, 165°00'W; wind, 140°, 7 kt; weather, clear; sea, very rough.											
	0	5.80	32.21	-	25.40	0	5.80	32.21		25.40	259	0.00
	9	5.43	32.20	7.58	25.43	10	5.43	32.20	7.54	25.43	256	0.03
	23	5.38	32.19	7.12	25.43	20	5.39	32.19	7.19	25.43	256	0.05
	47	5.33	32.20	7.16	25.44	30	5.36	32.19	7.12	25.43	256	0.08
	71	5.38	32.19	7.28	25.43	50	5.34	32.19	7.19	25.44	256	0.13
	95	5.28	32.30	7.07	25.53	75	5.36	32.20	7.28	25.44	255	0.19
	119	5.18	32.59	6.34	25.77	100	5.25	32.35	6.90	25.57	243	0.26
	142	5.18	32.98	5.81	26.08	150	5.18	33.04	5.79	26.13	191	0.36
	190	5.20	33.33	5.02	26.35	200	5.24	33.43	4.37	26.43	163	0.45
	237	5.28	33.70	2.70	26.64	250	5.24	33.73	2.53	26.66	141	0.53
	285	5.09	33.80	2.21	26.74	300	(5.00)	(33.82)	(2.12)	(26.76)	(132)	(0.60)
6	ATTU; May 19, 1958; 0253 GCT; 53°00'N, 165°00'W; wind, 120°, 15 kt; weather, clear; sea, rough.											
	0	5.90	32.63	-	25.72	0	5.90	32.63		25.72	228	0.00
	9	5.90	32.63	8.00	25.72	10	5.90	32.63	7.92	25.72	229	0.02
	23	5.89	32.63	7.19	25.72	20	5.90	32.63	7.31	25.72	229	0.05
	47	5.79	32.63	7.11	25.73	30	5.86	32.63	7.17	25.72	228	0.07
	70	4.74	32.84	6.28	26.02	50	5.58	32.65	7.07	25.77	224	0.11
	94	4.97	33.18	4.16	26.26	75	4.79	32.91	5.71	26.07	196	0.17
	117	5.18	33.54	3.55	26.52	100	5.04	33.29	3.96	26.34	170	0.21
	140	5.24	33.71	3.27	26.65	150	4.95	33.73	2.81	26.70	137	0.29
	188	4.22	33.82	1.49	26.85	200	4.18	33.86	1.27	26.88	120	0.35
	235	4.08	33.94	0.78	26.96	250	4.06	33.96	0.67	26.98	111	0.41
	282	4.02	33.99	0.55	27.00	300	(4.00)	(34.00)	(0.54)	(27.01)	(108)	(0.47)
7	ATTU; May 27, 1958; 2237 GCT; 51°53'N, 179°50'W; wind, 270°, 2 kt; weather, clear; sea, moderate.											
	0	5.10	33.11	-	26.19	0	5.10	33.11		26.19	184	0.00
	10	4.90	33.18	6.51	26.27	10	4.90	33.18	6.51	26.27	176	0.02
	25	4.60	33.20	6.37	26.32	20	4.68	33.19	6.42	26.30	173	0.04
	50	4.52	33.23	6.16	26.35	30	4.59	33.21	6.33	26.33	171	0.05
	75	4.42	33.24	5.98	26.37	50	4.52	33.23	6.16	26.35	169	0.09
	100	3.68	33.22	6.99	26.43	75	4.42	33.24	5.98	26.37	167	0.13
	125	-	33.30	6.06	-	100	3.68	33.22	6.99	26.43	162	0.17
	150	3.17	33.30	6.53	26.54	150	3.17	33.30	6.53	26.54	152	0.25
	200	3.32	33.40	5.71	26.60	200	3.32	33.40	5.71	26.60	146	0.32
	250	4.04	33.67	3.21	26.75	250	4.04	33.67	3.21	26.75	133	0.39
	300	3.87	33.79	2.58	26.86	300	3.87	33.79	2.58	26.86	122	0.46
8	ATTU; June 16, 1958; 2303, 2254 GCT; 53°17'N, 170°35'W; wind, 140°, 5 kt; weather, cloudy; sea, smooth.											
	0	7.20	32.93	-	25.78	0	7.20	32.93		25.78	222	0.00
	10	6.67	32.91	7.60	25.84	10	6.67	32.91	7.60	25.84	217	0.02
	25	5.68	32.96	7.21	26.00	20	5.99	32.94	7.34	25.95	207	0.04
	50	4.36	33.13	6.63	26.29	30	5.35	33.00	7.03	26.07	195	0.06
						50	4.36	33.13	6.63	26.29	175	0.10
	75	3.82	33.20	6.87	26.40	75	3.82	33.20	6.87	26.40	164	0.14
	100	3.46	33.21	6.87	26.44	100	3.46	33.21	6.87	26.44	161	0.18
	125	3.41	33.28	6.19	26.50	150	3.35	33.35	5.66	26.56	149	0.26
	150	3.35	33.35	5.66	26.56	200	3.71	33.50	4.30	26.65	142	0.33
	200	3.71	33.50	4.30	26.65	250	3.87	33.62	3.26	26.72	135	0.40
	250	3.87	33.62	3.26	26.72	300	3.83	33.74	2.64	26.82	126	0.47
	300	3.83	33.74	2.64	26.82							

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m
ATTU; June 17, 1958; 0630, 0438 GCT; 53°30'N, 170°02'W; wind, 140°, 5 kt; weather, cloudy; sea, smooth.											9
0	6.30	33.14	-	26.07	0	6.30	33.14		26.07	195	0.00
10	6.66	33.12	7.88	26.01	10	6.66	33.12	7.88	26.01	201	0.02
25	5.45	33.12	6.85	26.16	20	5.78	33.12	7.16	26.12	191	0.04
50	4.84	33.18	5.89	26.27	30	5.33	33.13	6.62	26.18	185	0.06
75	4.17	33.30	5.49	26.44	50	4.84	33.18	5.89	26.27	176	0.10
100	4.02	33.31	5.23	26.46	75	4.17	33.30	5.49	26.44	160	0.14
125	3.95	33.36	5.15	26.51	100	4.02	33.31	5.23	26.46	158	0.18
150	3.96	33.43	4.58	26.57	150	3.96	33.43	4.58	26.57	149	0.25
200	3.90	33.60	3.49	26.71	200	3.90	33.60	3.49	26.71	136	0.32
250	3.84	33.68	3.20	26.78	250	3.84	33.68	3.20	26.78	130	0.39
300	3.84	33.75	2.33	26.83	300	3.84	33.75	2.33	26.83	125	0.46
					400	3.60	33.95	1.89	27.01	108	0.57
400	3.60	33.95	1.89	27.01	500	3.47	34.04	1.51	27.10	101	0.68
500	3.47	34.04	1.51	27.10	600	3.34	34.11	1.02	27.17	95	0.78
700	3.19	34.18	0.68	27.24	700	3.19	34.18	0.68	27.24	89	0.87
1050	2.58	34.41	0.71	27.47	800	3.03	34.25	0.49	27.31	83	0.95
					1000	2.68	34.38	0.58	27.44	71	1.11
ATTU; June 18, 1958; 0023 GCT; 53°48'N, 168°57'W; wind, 060°, 15 kt; weather, overcast; sea, moderate.											10
0	7.10	32.54	-	25.49	0	7.10	32.54		25.49	250	0.00
10	6.39	32.52	7.20	25.57	10	6.39	32.52	7.20	25.57	243	0.02
25	5.88	32.56	6.55	25.66	20	6.02	32.55	6.73	25.64	236	0.05
50	5.65	32.64	6.32	25.75	30	5.83	32.57	6.52	25.68	232	0.07
75	5.46	32.76	5.90	25.87	50	5.65	32.64	6.32	25.75	225	0.12
100	5.16	33.07	5.62	26.15	75	5.46	32.76	5.90	25.87	214	0.17
125	4.69	33.12	5.38	26.24	100	5.16	33.07	5.62	26.15	188	0.22
150	4.11	33.20	5.49	26.37	150	4.11	33.20	5.49	26.37	168	0.31
200	3.80	33.30	5.34	26.48	200	3.80	33.30	5.34	26.48	158	0.39
250	3.65	33.40	4.78	26.57	250	3.65	33.40	4.78	26.57	149	0.47
300	3.84	33.55	3.71	26.67	300	3.84	33.55	3.71	26.67	140	0.54
ATTU; June 18, 1958; 1030, 0848 GCT; 53°59'N, 167°32'W; wind, 060°, 15 kt; weather, overcast; sea, rough.											11
0	7.00	32.67	-	25.61	0	7.00	32.67		25.61	239	0.00
10	6.86	32.72	7.45	25.67	10	6.86	32.72	7.45	25.67	234	0.02
24	5.88	32.80	5.42	25.85	20	6.12	32.78	5.86	25.81	220	0.05
49	5.03	32.86	5.38	26.00	30	5.59	32.81	5.39	25.90	212	0.07
73	5.08	32.93	5.62	26.05	50	5.04	32.86	5.39	26.00	202	0.11
98	4.85	33.01	-	26.14	75	5.06	32.94	5.67	26.06	197	0.16
123	4.78	33.08	5.39	26.20	100	4.85	33.01	5.86	26.14	189	0.21
140	4.63	33.16	4.65	26.28	150	4.55	33.19	4.67	26.31	173	0.30
191	4.28	33.31	4.69	26.44	200	4.26	33.31	4.66	26.44	162	0.38
					250	4.14	33.35	4.42	26.48	158	0.46
395	3.88	33.58	3.20	26.69	300	4.03	33.41	4.09	26.54	152	0.54
494	3.78	33.85	1.93	26.92	400	3.88	33.60	3.12	26.71	137	0.69
692	3.34	34.15	0.77	27.20	500	3.77	33.86	1.88	26.93	118	0.81
1037	2.75	34.29	0.62	27.36	600	3.54	34.03	1.21	27.08	103	0.92
					700	3.32	34.16	0.74	27.21	92	1.02
					800	3.13	34.25	0.47	27.30	84	1.11
					1000	2.80	34.30	0.52	27.37	78	1.27

SBL

MV ATTU

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m
12	ATTU; June 24, 1958; 0037 GCT; 54°25'N, 166°51'W; wind, 240°, 9 kt; weather, cloudy; sea, rough.										
0	7.80	32.69	-	25.51	0	7.80	32.69		25.51	248	0.00
10	6.78	32.75	7.32	25.70	10	6.78	32.75	7.32	25.70	230	0.02
25	6.45	32.86	6.97	25.83	20	6.63	32.82	7.10	25.77	223	0.05
50	4.55	33.07	6.09	26.22	30	5.95	32.91	6.74	25.93	208	0.07
75	4.10	33.15	5.88	26.33	50	4.55	33.07	6.09	26.22	181	0.11
100	4.06	33.23	5.35	26.40	75	4.10	33.15	5.88	26.33	171	0.15
125	3.91	33.26	5.47	26.44	100	4.06	33.23	5.35	26.40	165	0.19
150	3.70	33.31	5.43	26.50	150	3.70	33.31	5.43	26.50	156	0.27
200	3.60	33.39	5.01	26.57	200	3.60	33.39	5.01	26.57	149	0.35
250	3.80	33.43	3.89	26.58	250	3.80	33.43	3.89	26.58	148	0.42
300	3.85	33.54	3.34	26.66	300	3.85	33.54	3.34	26.66	141	0.50
13	ATTU; June 24, 1958; 0623 GCT; 54°59'N, 167°22'W; wind, 240°, 5 kt; weather, cloudy; sea, slight.										
0	6.60	32.53	-	25.55	0	6.60	32.53		25.55	244	0.00
10	6.50	32.91	7.95	25.86	10	6.50	32.91	7.95	25.86	215	0.02
30	5.40	32.95	6.29	26.03	20	5.87	32.94	6.97	25.96	205	0.04
50	4.95	32.95	5.89	26.08	30	5.40	32.95	6.29	26.03	199	0.06
70	4.62	33.04	5.96	26.19	50	4.95	32.95	5.89	26.08	194	0.10
90	4.45	33.08	5.86	26.24	75	4.57	33.05	5.92	26.20	183	0.15
110	4.32	33.10	5.85	26.27	100	4.38	33.09	5.85	26.25	178	0.20
130	4.26	33.12	5.84	26.29	150	4.12	33.14	5.80	26.32	172	0.28
150	4.12	33.14	5.80	26.32	200	3.58	33.55	5.78	26.70	137	0.36
170	4.02	33.25	5.73	26.42							
200	3.58	33.55	5.78	26.70							
14	ATTU; June 25, 1958; 0710 GCT; 55°04'N, 169°24'W; wind, 170°, 30 kt; weather, fog; sea, high.										
0	6.60	33.01	-	25.93	0	6.60	33.01		25.93	208	0.00
10	6.76	32.98	7.07	25.88	10	6.76	32.98	7.07	25.88	213	0.02
25	6.78	32.97	7.17	25.87	20	6.77	32.97	7.17	25.87	214	0.04
50	5.07	33.09	6.59	26.18	30	6.39	33.00	7.03	25.95	207	0.06
75	4.02	33.17	6.29	26.35	50	5.07	33.09	6.59	26.18	185	0.10
100	3.84	33.22	6.46	26.41	75	4.02	33.17	6.29	26.35	169	0.15
125	3.57	33.26	6.18	26.47	100	3.84	33.22	6.46	26.41	163	0.19
150	2.90	33.27	6.87	26.54	150	2.90	33.27	6.87	26.54	151	0.27
200	3.78	33.47	4.32	26.61	200	3.78	33.47	4.32	26.61	145	0.34
250	3.88	33.63	3.26	26.73	250	3.88	33.63	3.26	26.73	134	0.41
300	3.85	33.76	2.46	26.84	300	3.85	33.76	2.46	26.84	124	0.48
15	ATTU; June 26, 1958; 0020 GCT; 55°33'N, 169°45'W; wind, 240°, 8 kt; weather, fog; sea, high.										
0	6.60	32.82	-	25.78	0	6.60	32.82		25.78	223	0.00
10	6.22	32.81	6.97	25.82	10	6.22	32.81	6.97	25.82	219	0.02
25	6.20	32.80	6.90	25.81	20	6.21	32.80	6.94	25.81	220	0.04
50	5.37	32.83	6.57	25.94	30	6.05	32.81	6.83	25.84	217	0.07
75	4.32	32.98	6.12	26.17	50	5.37	32.83	6.57	25.94	208	0.11
100	4.23	33.05	5.89	26.24	75	4.32	32.98	6.12	26.17	186	0.16
125	4.10	33.09	5.76	26.28	100	4.23	33.05	5.89	26.24	180	0.20
150	3.95	33.15	5.84	26.34	150	3.95	33.15	5.84	26.34	170	0.29
200	3.58	33.23	5.87	26.44	200	3.58	33.23	5.87	26.44	161	0.37
250	3.24	33.25	6.29	26.49	250	3.24	33.25	6.29	26.49	156	0.45
300	3.45	33.40	5.10	26.59	300	3.45	33.40	5.10	26.59	147	0.53

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m
ATTU; June 26, 1958; 0516 GCT; 55°58'N, 170°04'W; wind, 210°, 8 kt; weather, fog; sea, moderate.											16
0	6.80	32.79	-	25.73	0	6.80	32.79		25.73	227	0.00
10	6.64	32.78	7.28	25.74	10	6.64	32.78	7.28	25.74	226	0.02
30	6.58	32.77	7.04	25.74	20	6.61	32.77	7.17	25.74	227	0.05
50	5.52	32.83	6.72	25.92	30	6.58	32.77	7.04	25.74	226	0.07
70	4.48	32.90	5.61	26.09	50	5.52	32.83	6.72	25.92	210	0.11
90	4.25	32.99	5.89	26.19	75	4.43	32.92	5.69	26.11	192	0.16
110	3.97	33.09	6.10	26.29	100	4.08	33.05	6.04	26.25	178	0.21
130	3.92	33.15	5.99	26.35	150	3.74	33.16	6.24	26.37	167	0.30
150	3.74	33.16	6.24	26.37	200	3.50	33.25	5.86	26.47	158	0.38
170	3.52	33.19	6.12	26.42							
200	3.50	33.25	5.86	26.47							
ATTU; June 27, 1958; 0405 GCT; 56°57'N, 169°58'W; wind, 150°, 3 kt; weather, overcast; sea, smooth.											17
0	6.80	32.22	-	25.28	0	6.80	32.22		25.28	270	0.00
10	6.06	32.22	9.67	25.37	10	6.06	32.22	9.67	25.37	261	0.03
20	5.90	32.20	8.50	25.38	20	5.90	32.20	8.50	25.38	261	0.05
30	4.82	32.22	8.48	25.52	30	4.82	32.22	8.48	25.52	248	0.08
40	4.75	32.27	6.99	25.56	50	4.73	32.28	6.78	25.57	242	0.13
50	4.73	32.28	6.78	25.57							
ATTU; June 28, 1958; 0029 GCT; 57°31'N, 170°00'W; wind, 100°, 12 kt; weather, fog; sea, moderate.											18
0	6.00	32.18	-	25.35	0	6.00	32.18		25.35	263	0.00
10	5.66	32.13	9.33	25.35	10	5.66	32.13	9.33	25.35	263	0.03
20	5.43	32.13	8.83	25.38	20	5.43	32.13	8.83	25.38	261	0.05
30	3.62	32.19	7.28	25.61	30	3.62	32.19	7.28	25.61	238	0.08
40	3.34	32.19	7.24	25.64	50	3.30	32.20	7.15	25.65	235	0.12
50	3.30	32.20	7.15	25.65							
60	3.30	32.20	7.30	25.65							
ATTU; June 28, 1958; 0501 GCT; 57°59'N, 169°59'W; wind, 120°, 10 kt; weather, fog; sea, rough.											19
0	6.50	32.13	-	25.25	0	6.50	32.13		25.25	273	0.00
10	6.16	32.14	8.37	25.30	10	6.16	32.14	8.37	25.30	268	0.03
20	5.56	32.10	7.75	25.34	20	5.56	32.10	7.75	25.34	265	0.05
30	4.60	32.13	7.74	25.47	30	4.60	32.13	7.74	25.47	252	0.08
40	3.01	32.16	7.06	25.64	50	2.90	32.16	7.16	25.65	235	0.13
50	2.90	32.16	7.16	25.65							
60	2.86	32.17	6.46	25.66							
ATTU; June 29, 1958; 0009 GCT; 57°40'N, 170°41'W; wind, calm; weather, fog; sea, slight.											20
0	6.70	32.17	-	25.25	0	6.70	32.17		25.25	272	0.00
10	6.02	32.16	7.96	25.33	10	6.02	32.16	7.96	25.33	265	0.03
20	6.00	32.14	7.73	25.32	20	6.00	32.14	7.73	25.32	267	0.05
30	4.84	32.18	7.34	25.48	30	4.84	32.18	7.34	25.48	251	0.08
40	3.55	32.21	6.87	25.64	50	3.52	32.21	6.70	25.64	236	0.13
50	3.52	32.21	6.70	25.64							
60	3.50	32.21	6.25	25.64							
70	3.50	32.21	6.92	25.64							
ATTU; June 29, 1958; 0406 GCT; 57°18'N, 171°16'W; wind, calm; weather, fog; sea, slight.											21
0	7.10	32.29	-	25.30	0	7.10	32.29		25.30	268	0.00
10	6.48	32.31	8.56	25.39	10	6.48	32.31	8.56	25.39	259	0.03
20	6.48	32.31	8.06	25.39	20	6.48	32.31	8.06	25.39	260	0.05
30	5.36	32.28	7.24	25.50	30	5.36	32.28	7.24	25.50	249	0.08
40	4.88	32.30	6.98	25.57	50	4.48	32.37	6.73	25.67	233	0.12
50	4.48	32.37	6.73	25.67							
60	3.98	32.49	6.29	25.82							
70	3.94	32.53	6.06	25.85							

SBL

MV ATTU

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m
22	ATTU; June 29, 1958; 0808 GCT; 56°55'N, 171°52'W; wind, 210°, 2 kt; weather, fog; sea, slight.										
0	6.50	32.39	-	25.45	0	6.50	32.39		25.45	254	0.00
10	6.44	32.39	7.73	25.46	10	6.44	32.39	7.73	25.46	253	0.02
20	6.36	32.40	7.13	25.48	20	6.36	32.40	7.13	25.48	251	0.05
30	5.83	32.51	6.87	25.63	30	5.83	32.51	6.87	25.63	237	0.07
40	4.98	32.52	6.82	25.74	50	4.10	32.59	6.41	25.88	213	0.12
50	4.10	32.59	6.41	25.88							
60	4.05	32.71	5.56	25.98							
70	3.91	32.76	6.38	26.04							
23	ATTU; June 29, 1958; 1221 GCT; 56°35'N, 172°35'W; wind, 150°, 4 kt; weather, patches of fog; sea, slight.										
0	6.90	32.51	-	25.50	0	6.90	32.51		25.50	250	0.00
10	6.70	32.51	8.11	25.52	10	6.70	32.51	8.11	25.52	247	0.02
20	6.48	32.53	7.69	25.57	20	6.48	32.53	7.69	25.57	243	0.05
30	5.60	32.66	7.00	25.78	30	5.60	32.66	7.00	25.78	223	0.07
40	5.32	32.75	6.89	25.88	50	5.16	32.78	6.75	25.92	210	0.12
59	4.98	32.81	6.64	25.97	75	4.52	32.86	6.48	26.06	197	0.17
79	4.44	32.87	6.45	26.07	100	4.26	32.94	6.33	26.15	188	0.22
98	4.29	32.94	6.35	26.14	150	3.86	33.10	6.09	26.31	173	0.30
118	4.05	32.99	6.17	26.21							
138	3.92	-	-								
157	3.83	33.13	6.10	26.34							
24	ATTU; June 29, 1958; 1639 GCT; 56°15'N, 173°14'W; wind, 210°, 5 kt; weather, patches of fog; sea, slight.										
0	7.00	32.81	-	25.72	0	7.00	32.81		25.72	228	0.00
10	6.78	32.84	6.97	25.77	10	6.78	32.84	6.97	25.77	224	0.02
25	6.66	32.91	5.80	25.84	20	6.76	32.89	6.05	25.81	220	0.04
50	5.30	33.05	6.60	26.12	30	6.37	32.94	6.08	25.90	211	0.07
75	4.22	33.13	5.87	26.30	50	5.30	33.05	6.60	26.12	191	0.11
100	3.74	33.18	5.38	26.39	75	4.22	33.13	5.87	26.30	174	0.15
125	3.29	33.22	6.13	26.46	100	3.74	33.18	5.38	26.39	165	0.20
150	3.24	33.26	4.80	26.50	150	3.24	33.26	4.80	26.50	155	0.28
200	3.29	33.32	5.08	26.54	200	3.29	33.32	5.08	26.54	151	0.35
250	3.82	33.58	2.80	26.70	250	3.82	33.58	2.80	26.70	137	0.42
300	3.86	33.69	1.41	26.78	300	3.86	33.69	1.41	26.78	130	0.49
25	ATTU; June 29, 1958; 2056 GCT; 55°51'N, 173°48'W; wind, 190°, 4 kt; weather, patches of fog; sea, moderate.										
0	6.70	33.09	-	25.98	0	6.70	33.09		25.98	204	0.00
10	6.48	33.06	6.99	25.98	10	6.48	33.06	6.99	25.98	203	0.02
25	6.25	33.08	7.07	26.03	20	6.40	33.07	7.06	26.00	202	0.04
50	4.36	33.13	6.82	26.29	30	5.78	33.09	7.04	26.09	193	0.06
75	3.65	33.21	6.31	26.42	50	4.36	33.13	6.82	26.29	175	0.10
100	3.25	33.21	6.81	26.46	75	3.65	33.21	6.31	26.42	162	0.14
125	3.11	33.25	6.51	26.50	100	3.25	33.21	6.81	26.46	159	0.18
150	2.94	33.27	6.64	26.53	150	2.94	33.27	6.64	26.53	152	0.26
200	3.61	33.48	4.36	26.64	200	3.61	33.48	4.36	26.64	142	0.33
250	3.85	33.68	2.95	26.77	250	3.85	33.68	2.95	26.77	130	0.40
300	3.83	33.77	2.35	26.85	300	3.83	33.77	2.35	26.85	123	0.46
26	ATTU; June 30, 1958; 0123 GCT; 55°27'N, 174°23'W; wind, calm; weather, patches of fog; sea, moderate.										
0	6.90	32.87	-	25.78	0	6.90	32.87		25.78	223	0.00
10	6.43	32.86	7.04	25.83	10	6.43	32.86	7.04	25.83	218	0.02
25	5.84	32.93	6.97	25.96	20	6.08	32.90	7.00	25.91	211	0.04
50	4.00	33.08	6.75	26.28	30	5.35	32.97	6.92	26.05	197	0.06
75	3.70	33.12	6.52	26.34	50	4.00	33.08	6.75	26.28	175	0.10
100	3.37	33.20	6.74	26.44	75	3.70	33.12	6.52	26.34	169	0.14
125	3.08	33.23	6.65	26.49	100	3.37	33.20	6.74	26.44	160	0.18
150	2.97	33.28	6.40	26.54	150	2.97	33.28	6.40	26.54	151	0.26
200	3.46	33.40	5.06	26.59	200	3.46	33.40	5.06	26.59	147	0.34
250	3.82	33.59	3.37	26.71	250	3.82	33.59	3.37	26.71	136	0.41
300	3.85	33.75	2.31	26.83	300	3.85	33.75	2.31	26.83	125	0.47

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
ATTU; June 30, 1958; 0740, 0557 GCT; 55°04'N, 174°52'W; wind, 290°, 6 kt; weather, intermittent slight drizzle; sea, slight.											27
0	6.30	33.17	-	26.09	0	6.30	33.17		26.09	193	0.00
10	5.97	33.14	7.03	26.11	10	5.97	33.14	7.03	26.11	191	0.02
25	5.68	33.15	-	26.15	20	5.84	33.15	7.13	26.13	189	0.04
50	3.96	33.19	7.13	26.37	30	5.27	33.16	7.18	26.21	182	0.06
75	3.09	33.24	6.81	26.50	50	3.96	33.19	7.13	26.37	166	0.09
100	2.95	33.28	6.74	26.54	75	3.09	33.24	6.81	26.50	155	0.13
125	2.56	33.28	6.69	26.57	100	2.95	33.28	6.74	26.54	151	0.17
150	2.90	33.35	5.69	26.60	150	2.90	33.35	5.69	26.60	145	0.24
200	3.82	33.62	3.26	26.73	200	3.82	33.62	3.26	26.73	134	0.31
250	3.86	33.75	2.37	26.83	250	3.86	33.75	2.37	26.83	125	0.38
300	3.85	33.84	1.80	26.90	300	3.85	33.84	1.80	26.90	118	0.44
					400	3.65	34.00	1.06	27.05	105	0.55
400	3.65	34.00	1.06	27.05	500	3.49	34.09	0.75	27.14	98	0.65
500	3.49	34.09	0.75	27.14	600	3.36	34.16	0.63	27.20	92	0.75
700	3.22	34.23	0.54	27.27	700	3.22	34.23	0.54	27.27	86	0.84
1050	2.71	34.38	0.53	27.44	800	3.08	34.29	0.49	27.33	80	0.92
					1000	2.79	34.37	0.50	27.42	73	1.07
ATTU; July 1, 1958; 0607, 0518 GCT; 53°58'N, 175°00'W; wind, 320°, 15 kt; weather, light fog; sea, rough.											28
0	6.70	33.19	-	26.06	0	6.70	33.19		26.06	196	0.00
10	6.01	33.18	6.94	26.14	10	6.01	33.18	6.94	26.14	189	0.02
25	6.01	33.18	7.03	26.14	20	6.01	33.18	7.01	26.14	189	0.04
50	4.48	33.21	7.10	26.34	30	5.92	33.19	7.04	26.16	187	0.06
75	3.22	33.25	7.15	26.49	50	4.48	33.21	7.10	26.34	170	0.09
100	3.03	33.27	7.20	26.53	75	3.22	33.25	7.15	26.49	155	0.13
125	2.86	33.26	7.24	26.53	100	3.03	33.27	7.20	26.53	152	0.17
150	2.89	33.31	6.50	26.57	150	2.89	33.31	6.50	26.57	148	0.25
200	3.55	33.65	3.32	26.78	200	3.55	33.65	3.32	26.78	129	0.32
250	3.79	33.81	1.96	26.88	250	3.79	33.81	1.96	26.88	120	0.38
300	3.75	33.90	1.31	26.96	300	3.75	33.90	1.31	26.96	113	0.44
					400	3.61	34.04	0.93	27.08	102	0.54
400	3.61	34.04	0.93	27.08	500	3.45	34.12	0.72	27.16	95	0.64
500	3.45	34.12	0.72	27.16	600	3.36	34.18	0.60	27.22	90	0.73
700	3.25	34.24	0.52	27.28	700	3.25	34.24	0.52	27.28	85	0.82
1050	2.78	34.38	0.47	27.43	800	3.13	34.29	0.46	27.33	81	0.90
					1000	2.86	34.37	0.45	27.42	73	1.06
ATTU; July 2, 1958; 0005 GCT; 53°29'N, 175°00'W; wind, 180°, 2 kt; weather, light fog; sea, slight.											29
0	6.90	33.19	-	26.03	0	6.90	33.19		26.03	199	0.00
10	6.08	33.16	7.03	26.11	10	6.08	33.16	7.03	26.11	191	0.02
25	6.05	33.18	7.10	26.13	20	6.06	33.17	7.08	26.12	190	0.04
50	5.20	33.20	7.16	26.25	30	5.95	33.18	7.13	26.14	188	0.06
75	3.45	33.22	6.87	26.45	50	5.20	33.20	7.16	26.25	178	0.09
100	3.02	33.24	7.07	26.50	75	3.45	33.22	6.87	26.45	160	0.14
125	2.81	33.24	7.04	26.52	100	3.02	33.24	7.07	26.50	154	0.18
150	2.75	33.30	6.50	26.57	150	2.75	33.30	6.50	26.57	148	0.25
200	3.54	33.52	4.18	26.68	200	3.54	33.52	4.18	26.68	139	0.32
250	3.85	33.74	2.52	26.82	250	3.85	33.74	2.52	26.82	126	0.39
300	3.86	33.84	1.94	26.90	300	3.86	33.84	1.94	26.90	118	0.45

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
30	ATTU; July 2, 1958; 0616, 0458 GCT; 53°01'N, 175°00'W; wind, 210°, 5 kt; weather, cloudy; sea, slight.										
0	6.80	33.08	-	25.96	0	6.80	33.08		25.96	206	0.00
10	6.28	33.06	7.19	26.01	10	6.28	33.06	7.19	26.01	201	0.02
25	6.06	33.08	7.11	26.05	20	6.21	33.07	7.15	26.03	199	0.04
50	4.22	33.13	6.93	26.30	30	5.56	33.09	7.08	26.12	190	0.06
75	4.06	33.13	6.79	26.32	50	4.22	33.13	6.93	26.30	173	0.10
100	3.95	33.17	6.60	26.36	75	4.06	33.13	6.79	26.32	172	0.14
125	3.63	33.19	6.70	26.41	100	3.95	33.17	6.60	26.36	168	0.18
150	3.55	33.24	6.29	26.45	150	3.55	33.24	6.29	26.45	159	0.26
200	3.38	33.28	6.10	26.50	200	3.38	33.28	6.10	26.50	155	0.34
250	3.25	33.33	6.06	26.55	250	3.25	33.33	6.06	26.55	150	0.42
300	3.85	33.51	4.24	26.64	300	3.85	33.51	4.24	26.64	143	0.49
					400	4.02	33.73	2.44	26.80	129	0.63
400	4.02	33.73	2.44	26.80	500	3.80	33.95	1.49	26.99	111	0.75
500	3.80	33.95	1.49	26.99	600	3.62	34.05	1.00	27.09	103	0.85
700	3.45	34.14	0.64	27.18	700	3.45	34.14	0.64	27.18	95	0.95
1050	2.98	34.33	0.46	27.37	800	3.30	34.21	0.41	27.25	89	1.04
					1000	3.04	34.31	0.38	27.35	80	1.21
31	ATTU; July 10, 1958; 2351 GCT; 52°14'N, 176°47'W; wind, 060°, 7 kt; weather, patches of fog; sea, slight.										
0	6.70	33.15		26.02	0	6.70	33.15		26.02	199	0.00
10	7.06	33.12		25.95	10	7.06	33.12		25.95	206	0.02
24	6.62	33.13		26.02	20	6.77	33.13		26.00	202	0.04
49	5.36	33.19		26.22	30	6.30	33.15		26.08	195	0.06
73	4.33	33.21		26.35	50	5.31	33.19		26.23	180	0.10
98	3.42	33.22		26.45	75	4.23	33.21		26.36	168	0.14
123	3.17	33.26		26.51	100	3.39	33.22		26.45	159	0.18
147	3.08	33.30		26.55	150	3.09	33.30		26.54	151	0.26
196	3.30	33.42		26.62	200	3.35	33.44		26.63	143	0.33
245	3.71	33.64		26.76	250	3.72	33.65		26.76	131	0.40
294	3.80	33.77		26.85	300	(3.81)	(33.79)		(26.87)	(122)	(0.46)
32	ATTU; July 11, 1958; 0446, 0336 GCT; 52°26'N, 177°02'W; wind, 030°, 5 kt; weather, cloudy; sea, moderate.										
0	6.80	33.08	-	25.96	0	6.80	33.08		25.96	206	0.00
10	7.00	33.09	6.80	25.94	10	7.00	33.09	6.80	25.94	208	0.02
25	6.68	33.12	6.83	26.00	20	6.83	33.11	6.82	25.98	204	0.04
50	5.18	33.17	6.97	26.23	30	6.36	33.13	6.88	26.05	197	0.06
75	3.98	33.21	6.92	26.39	50	5.18	33.17	6.97	26.23	180	0.10
100	3.52	33.21	6.79	26.43	75	3.98	33.21	6.92	26.39	165	0.14
125	3.52	33.24	6.16	26.46	100	3.52	33.21	6.79	26.43	161	0.18
150	3.15	33.27	6.29	26.51	150	3.15	33.27	6.29	26.51	154	0.26
200	3.65	33.44	4.97	26.60	200	3.65	33.44	4.97	26.60	146	0.34
250	3.79	33.62	3.40	26.73	250	3.79	33.62	3.40	26.73	134	0.41
286	3.90	33.63	2.86	26.73	300	3.88	33.68	2.58	26.77	131	0.47
					400	3.73	33.91	1.24	26.97	113	0.60
390	3.75	33.90	1.29	26.96	500	3.60	34.02	0.93	27.07	104	0.70
487	3.61	34.01	0.95	27.06	600	3.50	34.09	0.76	27.13	98	0.80
682	3.40	34.15	0.66	27.19	700	3.38	34.16	0.64	27.20	93	0.90
1024	2.87	34.34	0.56	27.39	800	3.24	34.22	0.57	27.26	87	0.99
					1000	2.91	34.33	0.55	27.38	77	1.15
33	ATTU; July 11, 1958; 2340 GCT; 52°21'N, 178°00'W; wind, 340°, 15 kt; weather, cloudy; sea, moderate.										
0	7.30	33.14	-	25.94	0	7.30	33.14		25.94	208	0.00
9	6.89	33.12	6.91	25.98	10	6.88	33.12	6.91	25.98	204	0.02
23	6.82	33.12	6.87	25.99	20	6.83	33.12	6.88	25.98	203	0.04
47	4.49	33.13	6.64	26.27	30	5.94	33.12	6.80	26.10	193	0.06
71	4.11	33.18	6.41	26.35	50	4.44	33.14	6.61	26.29	175	0.10
94	3.74	33.22	6.22	26.42	75	4.04	33.19	6.37	26.37	167	0.14
118	3.43	33.27	6.03	26.49	100	3.64	33.23	6.14	26.44	161	0.18
141	3.35	33.30	6.10	26.52	150	3.42	33.34	5.73	26.55	151	0.26
189	3.67	33.49	4.31	26.64	200	3.73	33.54	3.95	26.68	139	0.33
236	3.86	33.68	2.97	26.77	250	3.86	33.72	2.67	26.81	127	0.40
284	3.86	33.80	2.13	26.87	300	(3.85)	(33.83)	(1.96)	(26.89)	(119)	(0.46)

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m
ATTU; July 12, 1958; 0622, 0429 GCT; 52°04'N, 178°38'W; wind, 030°, 12 kt; weather, cloudy; sea, rough.											34
0	7.20	33.13	-	25.94	0	7.20	33.13		25.94	207	0.00
10	6.90	33.09	6.81	25.95	10	6.90	33.09	6.81	25.95	206	0.02
25	6.82	33.10	6.80	25.97	20	6.87	33.09	6.79	25.96	206	0.04
50	4.48	33.16	6.98	26.30	30	6.00	33.11	6.88	26.08	194	0.06
75	3.77	33.21	6.65	26.41	50	4.48	33.16	6.98	26.30	174	0.10
100	3.28	33.21	6.88	26.46	75	3.77	33.21	6.65	26.41	163	0.14
125	3.10	33.22	7.06	26.48	100	3.28	33.21	6.88	26.46	159	0.18
150	2.99	33.26	6.65	26.52	150	2.99	33.26	6.65	26.52	153	0.26
200	3.32	33.40	5.32	26.60	200	3.32	33.40	5.32	26.60	146	0.33
250	3.86	33.62	3.19	26.73	250	3.86	33.62	3.19	26.73	135	0.40
300	3.90	33.77	2.41	26.84	300	3.90	33.77	2.41	26.84	124	0.47
					400	3.77	33.94	1.32	26.99	111	0.59
395	3.78	33.93	1.34	26.98	500	3.55	34.05	0.92	27.10	101	0.69
494	3.56	34.05	0.93	27.10	600	3.43	34.12	0.69	27.17	95	0.79
691	3.32	34.17	0.57	27.22	700	3.31	34.18	0.56	27.22	90	0.88
1037	2.90	34.36	0.67	27.41	800	3.19	34.23	0.50	27.28	86	0.97
					1000	2.94	34.34	0.62	27.39	76	1.14
ATTU; July 12, 1958; 2348 GCT; 52°16'N, 179°20'W; wind, 270°, 5 kt; weather, fog; sea, slight.											35
0	6.50	33.16	-	26.06	0	6.50	33.16		26.06	196	0.00
10	6.06	33.15	6.55	26.11	10	6.06	33.15	6.55	26.11	192	0.02
25	5.36	33.24	5.77	26.26	20	5.56	33.21	6.00	26.22	181	0.04
50	4.84	33.33	4.97	26.39	30	5.25	33.26	5.52	26.29	174	0.06
75	4.39	33.34	5.21	26.45	50	4.84	33.33	4.97	26.39	165	0.09
100	4.43	33.41	4.52	26.50	75	4.39	33.34	5.21	26.45	160	0.13
125	4.48	33.47	4.10	26.54	100	4.43	33.41	4.52	26.50	155	0.17
150	4.45	33.49	3.98	26.56	150	4.45	33.49	3.98	26.56	150	0.25
200	4.26	33.56	3.64	26.64	200	4.26	33.56	3.64	26.64	143	0.32
250	3.99	33.64	3.26	26.73	250	3.99	33.64	3.26	26.73	134	0.39
ATTU; July 13, 1958; 0635 GCT; 52°31'N, 179°59'W; wind, 250°, 7 kt; weather, fog; sea, moderate.											36
0	6.40	33.17	-	26.08	0	6.40	33.17		26.08	194	0.00
10	6.09	33.16	6.89	26.11	10	6.09	33.16	6.89	26.11	191	0.02
25	5.67	33.21	6.60	26.20	20	5.81	33.20	6.68	26.18	185	0.04
50	4.90	33.20	6.55	26.28	30	5.47	33.20	6.64	26.22	181	0.06
75	4.74	33.28	5.77	26.36	50	4.90	33.20	6.55	26.28	175	0.09
100	4.02	33.26	6.00	26.42	75	4.74	33.28	5.77	26.36	168	0.14
125	4.18	33.31	5.48	26.45	100	4.02	33.26	6.00	26.42	162	0.18
150	4.24	33.33	5.34	26.46	150	4.24	33.33	5.34	26.46	159	0.26
200	4.18	33.45	4.52	26.56	200	4.18	33.45	4.52	26.56	150	0.33
250	4.00	33.53	3.92	26.64	250	4.00	33.53	3.92	26.64	143	0.41
300	3.92	33.62	3.37	26.72	300	3.92	33.62	3.37	26.72	136	0.48
ATTU; July 14, 1958; 0015 GCT; 52°59'N, 179°58'W; wind, 270°, 15 kt; weather, fog; sea, rough.											37
0	6.40	33.16	-	26.07	0	6.40	33.16		26.07	195	0.00
10	6.08	33.16	6.78	26.11	10	6.08	33.16	6.78	26.11	191	0.02
25	5.64	33.21	6.50	26.21	20	5.81	33.20	6.55	26.18	185	0.04
49	4.43	33.15	6.66	26.29	30	5.36	33.19	6.54	26.22	181	0.06
74	3.54	33.17	6.72	26.40	50	4.38	33.15	6.68	26.30	174	0.09
98	3.54	33.23	6.26	26.45	75	3.53	33.17	6.71	26.40	164	0.13
122	3.88	33.32	5.48	26.49	100	3.58	33.24	6.18	26.45	159	0.17
146	3.95	33.39	5.00	26.53	150	3.92	33.39	4.94	26.54	152	0.25
195	3.75	33.49	4.09	26.63	200	3.77	33.51	3.91	26.65	142	0.32
244	3.88	33.69	2.74	26.78	250	3.87	33.71	2.65	26.80	128	0.39
292	3.83	33.79	2.26	26.86	300	(3.82)	(33.80)	(2.23)	(26.87)	(121)	(0.45)

SBL

MV ATTU

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
38	ATTU; July 14, 1958; 0611, 0526 GCT; 53°31'N, 180°00'; wind, 240°, 7 kt; weather, fog; sea, moderate.										
0	6.50	33.07	-	25.99	0	6.50	33.07		25.99	203	0.00
10	6.78	33.04	6.65	25.93	10	6.78	33.04	6.65	25.93	209	0.02
25	6.75	33.07	6.90	25.96	20	6.76	33.06	6.82	25.95	207	0.04
50	3.65	33.12	7.17	26.35	30	5.85	33.08	6.97	26.08	194	0.06
75	4.05	33.23	5.85	26.40	50	3.65	33.12	7.17	26.35	169	0.10
100	4.03	33.36	5.31	26.50	75	4.05	33.23	5.85	26.40	164	0.14
125	3.45	33.38	5.16	26.57	100	4.03	33.36	5.31	26.50	155	0.18
150	3.78	33.53	4.20	26.66	150	3.78	33.53	4.20	26.66	140	0.25
200	3.81	33.65	3.44	26.75	200	3.81	33.65	3.44	26.75	132	0.32
					250	3.80	33.74	2.48	26.83	125	0.39
341	3.71	34.00	1.14	27.04	300	3.80	33.78	2.07	26.86	122	0.45
390	3.63	34.05	0.88	27.09	400	3.62	34.06	0.82	27.10	100	0.56
439	3.59	34.11	0.63	27.14	500	(3.53)	(34.17)	(0.60)	(27.20)	(92)	(0.66)
488	3.54	34.16	0.60	27.19							
39	ATTU; July 15, 1958; 0015 GCT; 53°41'N, 179°00'E; wind, 250°, 7 kt; weather, fog; sea, moderate.										
0	7.10	33.12	-	25.95	0	7.10	33.12		25.95	207	0.00
10	7.04	33.11	6.73	25.95	10	7.04	33.11	6.73	25.95	207	0.02
25	6.51	33.13	6.87	26.03	20	6.79	33.12	6.81	25.99	203	0.04
50	3.62	33.13	7.22	26.36	30	5.74	33.13	6.99	26.13	190	0.06
75	3.10	33.17	6.97	26.44	50	3.62	33.13	7.22	26.36	168	0.10
100	2.80	33.22	6.72	26.51	75	3.10	33.17	6.97	26.44	160	0.14
125	2.77	33.31	6.66	26.58	100	2.80	33.22	6.72	26.51	154	0.18
150	3.34	33.48	4.66	26.66	150	3.34	33.48	4.66	26.66	139	0.25
200	3.90	33.74	2.35	26.82	200	3.90	33.74	2.35	26.82	126	0.32
250	3.78	33.85	1.51	26.92	250	3.78	33.85	1.51	26.92	117	0.38
300	3.75	33.96	0.95	27.01	300	3.75	33.96	0.95	27.01	108	0.43
40	ATTU; July 15, 1958; 0728, 0557 GCT; 54°00'N, 178°00'E; wind, 250°, 2 kt; weather, cloudy; sea, smooth.										
0	7.30	33.20	-	25.98	0	7.30	33.20		25.98	203	0.00
10	7.05	33.14	6.94	25.97	10	7.05	33.14	6.94	25.97	205	0.02
25	6.78	33.17	6.92	26.03	20	7.00	33.16	6.94	25.99	203	0.04
50	3.66	33.22	6.61	26.43	30	5.92	33.18	6.87	26.15	188	0.06
75	3.45	33.28	6.27	26.50	50	3.66	33.22	6.61	26.43	161	0.10
100	3.72	33.39	5.38	26.56	75	3.45	33.28	6.27	26.50	155	0.14
125	3.72	33.43	4.74	26.59	100	3.72	33.39	5.38	26.56	149	0.17
150	3.78	33.46	4.31	26.61	150	3.78	33.46	4.31	26.61	145	0.25
200	3.85	33.51	2.74	26.64	200	3.85	33.51	2.74	26.64	142	0.32
250	3.81	33.73	1.50	26.82	250	3.81	33.73	1.50	26.82	126	0.39
300	3.76	33.90	1.13	26.96	300	3.76	33.90	1.13	26.96	113	0.45
					400	3.66	34.06	0.73	27.10	101	0.55
398	3.66	34.06	0.73	27.10	500	3.50	34.17	0.56	27.20	92	0.65
497	3.50	34.17	0.56	27.20	600	3.35	34.22	0.52	27.25	87	0.74
696	3.22	34.26	0.49	27.30	700	3.21	34.26	0.49	27.30	83	0.82
1044	2.75	34.40	0.54	27.45	800	3.08	34.30	0.48	27.34	80	0.90
					1000	2.81	34.38	0.52	27.43	72	1.06
41	ATTU; July 15, 1958; 2346 GCT; 54°01'N, 177°11'E; wind, 210°, 1 kt; weather, fog; sea, smooth.										
0	7.80	33.12	-	25.85	0	7.80	33.12		25.85	216	0.00
10	7.10	33.11	6.89	25.94	10	7.10	33.11	6.89	25.94	207	0.02
25	6.42	33.15	7.15	26.06	20	6.73	33.14	7.08	26.01	201	0.04
50	3.66	33.24	7.16	26.44	30	5.69	33.17	7.16	26.17	186	0.06
75	3.15	33.25	7.02	26.50	50	3.66	33.24	7.16	26.44	160	0.10
100	2.75	33.27	6.94	26.55	75	3.15	33.25	7.02	26.50	155	0.13
125	2.87	33.37	5.64	26.62	100	2.75	33.27	6.94	26.55	150	0.17
150	3.33	33.51	4.26	26.69	150	3.33	33.51	4.26	26.69	137	0.24
200	3.89	33.79	2.03	26.86	200	3.89	33.79	2.03	26.86	122	0.31
250	3.80	33.89	1.40	26.95	250	3.80	33.89	1.40	26.95	114	0.37
300	3.78	33.96	1.05	27.00	300	3.78	33.96	1.05	27.00	109	0.42

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
ATTU; July 16, 1958; 0616, 0545 GCT; 54°02'N, 176°28'E; wind, 190°, 1 kt; weather, fog; sea, smooth.											42
0	8.00	33.16	-	25.85	0	8.00	33.16		25.85	216	0.00
10	7.39	33.14	6.81	25.92	10	7.39	33.14	6.81	25.92	209	0.02
25	6.62	33.14	6.87	26.03	20	6.96	33.14	6.81	25.98	204	0.04
50	3.70	33.20	7.62	26.41	30	5.85	33.15	7.10	26.13	189	0.06
75	3.11	33.24	7.32	26.49	50	3.70	33.20	7.62	26.41	163	0.10
100	2.89	33.26	6.91	26.53	75	3.11	33.24	7.32	26.49	155	0.14
125	2.89	33.34	5.98	26.59	100	2.89	33.26	6.91	26.53	152	0.18
150	3.34	33.52	4.28	26.70	150	3.34	33.52	4.28	26.70	136	0.25
200	3.94	33.78	2.08	26.84	200	3.94	33.78	2.08	26.84	123	0.31
250	3.82	33.89	1.41	26.94	250	3.82	33.89	1.41	26.94	114	0.37
300	3.77	33.98	0.97	27.02	300	3.77	33.98	0.97	27.02	107	0.43
					400	3.70	34.08	0.66	27.11	100	0.53
395	3.71	34.08	0.66	27.11	500	3.56	34.15	0.57	27.18	94	0.63
494	3.57	34.15	0.57	27.18	600	3.40	34.21	0.53	27.24	88	0.72
692	3.26	34.26	0.50	27.29	700	3.25	34.26	0.50	27.29	84	0.80
1040	2.79	34.39	0.49	27.44	800	3.10	34.31	0.48	27.35	79	0.88
					1000	2.84	34.38	0.48	27.43	72	1.04
ATTU; July 16, 1958; 2341 GCT; 54°03'N, 175°45'E; wind, 150°, 7 kt; weather, fog; sea, slight.											43
0	7.90	33.13	-	25.84	0	7.90	33.13		25.84	216	0.00
10	7.22	33.13	6.85	25.94	10	7.22	33.13	6.85	25.94	208	0.02
25	6.78	33.13	7.00	26.00	20	7.03	33.13	6.94	25.97	205	0.04
50	3.93	33.18	7.34	26.37	30	6.04	33.14	7.10	26.10	192	0.06
75	3.19	33.23	7.29	26.48	50	3.93	33.18	7.34	26.37	167	0.10
100	2.89	33.25	7.22	26.52	75	3.19	33.23	7.29	26.48	156	0.14
125	2.72	33.26	7.08	26.54	100	2.89	33.25	7.22	26.52	152	0.18
150	2.51	33.30	6.60	26.59	150	2.51	33.30	6.60	26.59	146	0.25
200	3.78	33.70	2.79	26.80	200	3.78	33.70	2.79	26.80	127	0.32
250	3.78	33.85	1.65	26.92	250	3.78	33.85	1.65	26.92	117	0.38
286	3.77	33.90	1.37	26.96	300	(3.76)	(33.91)	(1.32)	(26.97)	(112)	(0.44)
ATTU; July 17, 1958; 0531, 0439 GCT; 54°00'N, 175°00'E; wind, 150°, 5 kt; weather, overcast; sea, slight.											44
0	8.10	33.03	-	25.74	0	8.10	33.03		25.74	227	0.00
10	7.99	33.02	6.89	25.74	10	7.99	33.02	6.89	25.74	226	0.02
25	6.68	33.03	7.17	25.93	20	7.12	33.02	7.11	25.87	215	0.04
50	4.46	33.12	6.81	26.27	30	6.09	33.05	7.08	26.02	200	0.07
75	4.01	33.16	6.63	26.35	50	4.46	33.12	6.81	26.27	177	0.10
100	3.87	33.22	6.19	26.41	75	4.01	33.16	6.63	26.35	169	0.15
125	3.62	33.28	5.79	26.48	100	3.87	33.22	6.19	26.41	164	0.19
150	3.72	33.37	5.19	26.54	150	3.72	33.37	5.19	26.54	151	0.27
200	3.88	33.56	3.80	26.68	200	3.88	33.56	3.80	26.68	139	0.34
250	4.05	33.75	2.43	26.81	250	4.05	33.75	2.43	26.81	127	0.41
300	3.99	33.90	1.52	26.94	300	3.99	33.90	1.52	26.94	115	0.47
					400	3.80	34.03	0.99	27.06	104	0.58
399	3.80	34.03	0.99	27.06	500	3.55	34.12	0.67	27.15	96	0.68
498	3.55	34.12	0.67	27.15	600	3.48	34.18	0.54	27.21	91	0.77
697	3.38	34.24	0.45	27.27	700	3.38	34.24	0.45	27.27	87	0.86
1045	2.83	34.39	0.52	27.44	800	3.25	34.29	0.40	27.32	82	0.94
					1000	2.92	34.37	0.47	27.41	74	1.10
ATTU; July 18, 1958; 0029 GCT; 54°30'N, 175°00'E; wind, 080°, 4 kt; weather, fog; sea, slight.											45
0	8.60	33.03	-	25.66	0	8.60	33.03		25.66	234	0.00
10	8.18	32.99	6.83	25.69	10	8.18	32.99	6.83	25.69	231	0.02
25	7.25	33.02	7.01	25.85	20	7.61	33.01	6.99	25.79	222	0.05
50	4.62	33.14	6.54	26.27	30	6.57	33.05	6.89	25.96	206	0.07
75	3.94	33.18	6.46	26.37	50	4.62	33.14	6.54	26.27	177	0.10
100	3.80	33.24	6.01	26.43	75	3.94	33.18	6.46	26.37	167	0.15
125	3.65	33.31	5.49	26.50	100	3.80	33.24	6.01	26.43	162	0.19
150	3.57	33.39	4.92	26.57	150	3.57	33.39	4.92	26.57	148	0.27
200	3.94	33.75	2.52	26.82	200	3.94	33.75	2.52	26.82	125	0.33
250	3.89	33.88	1.53	26.93	250	3.89	33.88	1.53	26.93	115	0.39
300	3.82	33.96	1.18	27.00	300	3.82	33.96	1.18	27.00	109	0.45

SBL

MV ATTU

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
46	ATTU; July 18, 1958; 0615, 0525 GCT; 55°00'N, 175°00'E; wind, 080°, 3 kt; weather, cloudy; sea, slight.										
0	8.30	33.16	-	25.81	0	8.30	33.16		25.81	220	0.00
10	8.08	33.14	5.52	25.82	10	8.08	33.14	5.52	25.82	218	0.02
25	6.46	33.16	7.18	26.06	20	7.01	33.15	6.74	25.98	203	0.04
50	3.56	33.23	7.63	26.45	30	5.71	33.18	7.32	26.17	185	0.06
75	2.77	33.23	7.41	26.52	50	3.56	33.23	7.63	26.45	160	0.10
100	2.45	33.23	7.22	26.54	75	2.77	33.23	7.41	26.52	153	0.14
125	2.15	33.24	7.10	26.57	100	2.45	33.23	7.22	26.54	150	0.17
150	1.75	33.26	6.83	26.62	150	1.75	33.26	6.83	26.62	143	0.25
200	3.82	33.78	1.98	26.86	200	3.82	33.78	1.98	26.86	122	0.31
250	3.78	33.90	1.28	26.96	250	3.78	33.90	1.28	26.96	113	0.37
300	3.72	33.97	1.00	27.02	300	3.72	33.97	1.00	27.02	107	0.43
					400	3.61	34.08	0.67	27.12	99	0.53
395	3.62	34.08	0.67	27.12	500	3.49	34.16	0.58	27.19	92	0.63
494	3.50	34.16	0.58	27.19	600	3.34	34.21	0.53	27.25	88	0.72
692	3.21	34.25	0.49	27.29	700	3.20	34.25	0.49	27.29	84	0.80
1039	2.78	34.38	0.52	27.43	800	3.07	34.29	0.47	27.33	80	0.88
					1000	2.82	34.37	0.50	27.42	73	1.04
47	ATTU; July 19, 1958; 0015 GCT; 55°31'N, 175°00'E; wind, 060°, 1 kt; weather, partly cloudy; sea, smooth.										
0	8.50	33.19	-	25.80	0	8.50	33.19		25.80	220	0.00
10	7.85	33.18	6.89	25.89	10	7.85	33.18	6.89	25.89	212	0.02
25	6.17	33.19	7.32	26.12	20	6.76	33.18	7.21	26.04	198	0.04
50	2.83	33.25	7.36	26.53	30	5.25	33.21	7.34	26.25	178	0.06
75	2.70	33.26	7.29	26.55	50	2.83	33.25	7.36	26.53	152	0.10
100	2.50	33.26	7.17	26.56	75	2.70	33.26	7.29	26.55	150	0.13
125	2.51	33.33	6.60	26.62	100	2.50	33.26	7.17	26.56	149	0.17
150	2.95	33.49	4.58	26.71	150	2.95	33.49	4.58	26.71	135	0.24
200	3.88	33.83	1.71	26.89	200	3.88	33.83	1.71	26.89	119	0.30
250	3.77	33.90	-	26.96	250	3.77	33.90	1.25	26.96	113	0.36
292	3.69	33.97	0.96	27.02	300	(3.66)	(33.98)	(0.92)	(27.03)	(106)	(0.42)
48	ATTU; July 19, 1958; 0618, 0525 GCT; 55°59'N, 175°01'E; wind, calm; weather, partly cloudy; sea, smooth.										
0	8.50	33.09	-	25.72	0	8.50	33.09		25.72	228	0.00
10	7.97	33.08	6.94	25.79	10	7.97	33.08	6.94	25.79	221	0.02
25	6.56	33.10	7.27	26.00	20	7.09	33.09	7.18	25.93	209	0.04
50	3.02	33.16	7.40	26.44	30	5.60	33.11	7.35	26.13	189	0.06
75	2.62	33.20	6.89	26.50	50	3.02	33.16	7.40	26.44	160	0.10
100	1.94	33.24	6.52	26.59	75	2.62	33.20	6.89	26.50	154	0.14
125	2.23	33.32	5.94	26.63	100	1.94	33.24	6.52	26.59	146	0.18
149	3.36	33.64	3.18	26.79	150	3.37	33.65	3.14	26.80	127	0.24
199	3.76	33.84	1.58	26.91	200	3.76	33.84	1.57	26.91	117	0.30
248	3.69	33.91	1.14	26.97	250	3.69	33.91	1.13	26.97	111	0.36
297	3.66	34.00	0.82	27.05	300	3.66	34.00	0.81	27.05	104	0.42
					400	3.59	34.07	0.60	27.11	99	0.52
395	3.60	34.07	0.60	27.11	500	3.44	34.16	0.54	27.20	92	0.61
494	3.44	34.15	0.55	27.19	600	3.33	34.24	0.47	27.27	85	0.70
692	3.15	34.26	0.45	27.30	700	(3.13)	(34.26)	(0.45)	(27.30)	(82)	(0.79)
49	ATTU; July 20, 1958; 0049 GCT; 55°30'N, 175°06'E; wind, 250°, 2 kt; weather, partly cloudy; sea, slight.										
0	8.40	33.19	-	25.82	0	8.40	33.19		25.82	219	0.00
10	7.96	33.17	6.96	25.87	10	7.96	33.17	6.96	25.87	214	0.02
25	6.50	33.20	7.40	26.09	20	7.04	33.19	7.29	26.01	201	0.04
50	3.08	33.27	7.46	26.52	30	5.57	33.22	7.43	26.22	181	0.06
75	2.68	33.29	7.39	26.57	50	3.08	33.27	7.46	26.52	152	0.10
100	2.57	33.29	7.28	26.58	75	2.68	33.29	7.39	26.57	148	0.13
125	2.08	33.31	6.65	26.64	100	2.57	33.29	7.28	26.58	147	0.17
150	3.05	33.55	4.39	26.75	150	3.05	33.55	4.39	26.75	132	0.24
200	3.88	33.84	1.80	26.90	200	3.88	33.84	1.80	26.90	118	0.30
250	3.76	33.93	1.32	26.98	250	3.76	33.93	1.32	26.98	110	0.36
300	3.72	33.99	1.02	27.03	300	3.72	33.99	1.02	27.03	106	0.41

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
ATTU; July 20, 1958; 0543, 0458 GCT; 55°01'N, 174°58'E; wind, 270°, 1 kt; weather, partly cloudy; sea, slight.											50
0	8.80	33.22	-	25.78	0	8.80	33.22		25.78	223	0.00
10	7.86	33.17	6.73	25.88	10	7.86	33.17	6.73	25.88	213	0.02
25	6.26	33.19	7.28	26.11	20	6.80	33.18	7.12	26.04	198	0.04
50	3.42	33.26	7.73	26.48	30	5.51	33.21	7.43	26.22	181	0.06
75	2.80	33.26	7.45	26.54	50	3.42	33.26	7.73	26.48	156	0.10
100	2.43	33.26	7.22	26.57	75	2.80	33.26	7.45	26.54	151	0.13
125	2.28	33.30	7.00	26.61	100	2.43	33.26	7.22	26.57	148	0.17
150	2.27	33.35	6.03	26.65	150	2.27	33.35	6.03	26.65	140	0.24
200	3.82	33.78	2.13	26.86	200	3.82	33.78	2.13	26.86	122	0.31
250	3.75	33.89	1.51	26.95	250	3.75	33.89	1.51	26.95	113	0.37
300	3.91	33.96	1.12	26.99	300	3.91	33.96	1.12	26.99	110	0.42
					400	3.62	34.11	0.71	27.14	97	0.53
398	3.62	34.11	0.71	27.14	500	3.49	34.16	0.60	27.19	92	0.62
497	3.49	34.16	0.60	27.19	600	3.35	34.22	0.54	27.25	87	0.71
696	3.22	34.27	0.50	27.30	700	3.21	34.27	0.50	27.31	83	0.80
1044	2.74	34.43	0.52	27.48	800	3.08	34.32	0.48	27.36	78	0.88
					1000	2.80	34.41	0.50	27.45	70	1.02
ATTU; July 21, 1958; 0008 GCT; 54°30'N, 174°58'E; wind, 040°, 1 kt; weather, partly cloudy; sea, slight.											51
0	8.80	33.03	-	25.63	0	8.80	33.03		25.63	237	0.00
10	7.95	33.01	7.92	25.74	10	7.95	33.01	7.92	25.74	226	0.02
25	6.73	33.07	6.93	25.96	20	7.14	33.05	7.19	25.89	213	0.04
50	4.62	33.13	6.80	26.26	30	6.22	33.09	6.90	26.04	198	0.07
75	3.58	33.13	6.73	26.36	50	4.62	33.13	6.80	26.26	178	0.10
100	3.75	33.25	5.98	26.44	75	3.58	33.13	6.73	26.36	168	0.15
125	3.83	33.37	5.20	26.53	100	3.75	33.25	5.98	26.44	160	0.19
150	3.66	33.46	4.58	26.62	150	3.66	33.46	4.58	26.62	144	0.26
200	3.90	33.69	2.71	26.78	200	3.90	33.69	2.71	26.78	129	0.33
250	3.95	33.86	1.69	26.91	250	3.95	33.86	1.69	26.91	118	0.39
300	3.88	33.95	1.23	26.99	300	3.88	33.95	1.23	26.99	110	0.45
ATTU; July 21, 1958; 0610, 0522 GCT; 54°00'N, 174°58'E; wind, 330°, 3 kt; weather, partly cloudy; sea, slight.											52
0	9.10	33.03	-	25.58	0	9.10	33.03		25.58	241	0.00
10	8.04	33.05	6.80	25.76	10	8.04	33.05	6.80	25.76	225	0.02
25	7.00	33.07	7.08	25.92	20	7.39	33.06	7.02	25.86	215	0.04
50	4.43	33.15	6.83	26.29	30	6.28	33.08	7.10	26.02	200	0.07
75	4.44	33.27	5.76	26.39	50	4.43	33.15	6.83	26.29	174	0.10
100	3.99	33.32	5.72	26.47	75	4.44	33.27	5.76	26.39	165	0.14
125	4.01	33.37	5.25	26.51	100	3.99	33.32	5.72	26.47	157	0.18
150	3.95	33.41	4.96	26.55	150	3.95	33.41	4.96	26.55	150	0.26
199	3.96	33.57	3.72	26.68	200	3.96	33.58	3.68	26.68	138	0.33
249	3.97	33.77	2.36	26.83	250	3.97	33.77	2.35	26.83	124	0.40
298	3.84	33.86	2.04	26.92	300	3.84	33.86	2.02	26.92	117	0.46
					400	3.77	34.00	1.15	27.04	106	0.57
396	3.77	33.99	1.18	27.03	500	3.73	34.10	0.66	27.12	99	0.68
495	3.74	34.10	0.66	27.12	600	3.53	34.17	0.60	27.20	93	0.77
693	3.36	34.23	0.56	27.26	700	3.35	34.23	0.56	27.26	87	0.86
1040	2.83	34.37	0.54	27.42	800	3.18	34.28	0.54	27.32	82	0.95
					1000	2.88	34.36	0.53	27.41	74	1.10
ATTU; July 22, 1958; 0016 GCT; 53°37'N, 174°26'E; wind, 240°, 7 kt; weather, cloudy; sea, slight.											53
0	8.40	33.05	-	25.71	0	8.40	33.05		25.71	230	0.00
10	7.99	33.06	6.97	25.77	10	7.99	33.06	6.97	25.77	223	0.02
25	6.93	33.06	6.99	25.92	20	7.28	33.06	7.01	25.88	214	0.04
49	5.37	33.10	6.38	26.15	30	6.53	33.06	6.84	25.98	204	0.07
74	4.72	33.20	5.94	26.30	50	5.34	33.10	6.36	26.15	188	0.10
99	4.28	33.29	5.54	26.42	75	4.70	33.20	5.92	26.31	173	0.15
124	4.11	33.35	5.16	26.49	100	4.28	33.29	5.52	26.42	162	0.19
148	3.62	33.35	5.25	26.53	150	3.64	33.36	5.17	26.54	151	0.27
198	4.02	33.59	3.44	26.69	200	4.02	33.60	3.35	26.69	137	0.34
247	4.00	33.79	2.04	26.85	250	3.98	33.80	2.04	26.86	122	0.41
285	3.80	-	1.98		300	(3.75)	(33.88)	(1.96)	(26.94)	(114)	(0.47)

SBL

MV ATTU

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
54	ATTU; July 22, 1958; 0532, 0450 GCT; 53°21'N, 174°04'E; wind, 240°, 12 kt; weather, overcast; sea, moderate.										
0	8.50	33.06	-	25.70	0	8.50	33.06		25.70	230	0.00
10	7.20	33.04	6.78	25.87	10	7.20	33.04	6.78	25.87	214	0.02
25	6.50	33.05	7.01	25.97	20	6.75	33.04	6.97	25.93	208	0.04
50	4.90	33.14	6.66	26.24	30	6.11	33.07	6.97	26.04	198	0.06
75	4.20	33.23	5.96	26.38	50	4.90	33.14	6.66	26.24	180	0.10
100	3.80	33.30	5.49	26.48	75	4.20	33.23	5.96	26.38	166	0.14
125	3.60	33.44	4.59	26.61	100	3.80	33.30	5.49	26.48	157	0.18
150	3.50	33.52	4.01	26.68	150	3.50	33.52	4.01	26.68	138	0.26
200	3.70	33.71	2.72	26.81	200	3.70	33.71	2.72	26.81	126	0.32
250	3.70	33.85	1.84	26.92	250	3.70	33.85	1.84	26.92	116	0.38
300	3.70	33.93	1.44	26.99	300	3.70	33.93	1.44	26.99	110	0.44
					400	3.67	34.06	0.84	27.09	101	0.55
395	3.67	34.05	0.86	27.09	500	3.56	34.15	0.55	27.18	94	0.64
491	3.57	34.14	0.57	27.17	600	3.42	34.21	0.45	27.24	89	0.73
685	3.27	34.25	0.52	27.28							
55	ATTU; July 29, 1958; 0113 GCT; 52°21'N, 175°00'E; wind, 280°, 5 kt; weather, overcast; sea, moderate.										
0	8.30	32.99	-	25.67	0	8.30	32.99		25.67	232	0.00
10	7.94	32.97	6.85	25.71	10	7.94	32.97	6.85	25.71	229	0.02
25	7.61	32.99	6.79	25.77	20	7.79	32.98	6.81	25.74	226	0.05
50	5.64	33.08	6.66	26.10	30	7.15	33.01	6.78	25.85	216	0.07
75	4.44	33.15	6.43	26.29	50	5.64	33.08	6.66	26.10	192	0.11
100	4.08	33.19	6.33	26.36	75	4.44	33.15	6.43	26.29	174	0.16
125	4.02	33.20	6.19	26.38	100	4.08	33.19	6.33	26.36	168	0.20
150	3.96	33.21	6.15	26.39	150	3.96	33.21	6.15	26.39	166	0.28
200	3.94	33.52	4.01	26.64	200	3.94	33.52	4.01	26.64	142	0.36
237	3.90	33.70	2.83	26.79	250	3.92	33.73	2.64	26.81	127	0.42
277	3.93	33.78	2.34	26.85	300	(3.90)	(33.80)	(2.16)	(26.86)	(122)	(0.49)
56	ATTU; July 29, 1958; 1312 GCT; 52°15'N, 177°01'E; wind, 240°, 5 kt; weather, partly cloudy; sea, moderate.										
0	7.60	33.03	-	25.81	0	7.60	33.03		25.81	220	0.00
10	7.59	32.97	6.64	25.76	10	7.59	32.97	6.64	25.76	224	0.02
25	7.39	32.98	6.72	25.80	20	7.55	32.97	6.72	25.77	224	0.04
50	5.21	33.14	6.34	26.20	30	6.79	33.02	6.64	25.91	210	0.07
75	5.04	33.18	6.03	26.25	50	5.21	33.14	6.34	26.20	183	0.10
100	4.44	33.29	5.49	26.40	75	5.04	33.18	6.03	26.25	178	0.15
125	3.92	33.28	5.77	26.45	100	4.44	33.29	5.49	26.40	164	0.19
150	3.74	33.35	5.47	26.52	150	3.74	33.35	5.47	26.52	153	0.27
200	3.85	33.54	3.85	26.66	200	3.85	33.54	3.85	26.66	140	0.34
250	3.82	33.71	2.69	26.80	250	3.82	33.71	2.69	26.80	128	0.41
300	3.95	33.89	1.42	26.93	300	3.95	33.89	1.42	26.93	116	0.47
57	ATTU; August 5, 1958; 0024 GCT; 52°31'N, 174°58'W; wind, 280°, 6 kt; weather, fog; sea, moderate.										
0	8.50	33.13	-	25.75	0	8.50	33.13		25.75	225	0.00
10	7.97	33.17	6.68	25.86	10	7.97	33.17	6.68	25.86	215	0.02
24	7.73	33.13	6.78	25.87	20	7.86	33.14	6.75	25.86	216	0.04
49	5.74	33.18	6.71	26.17	30	7.13	33.14	6.88	25.96	206	0.06
73	5.13	33.27	5.47	26.31	50	5.71	33.18	6.64	26.17	186	0.10
98	4.81	33.30	5.21	26.37	75	5.10	33.27	5.43	26.32	172	0.15
123	4.52	33.33	5.20	26.43	100	4.79	33.30	5.20	26.37	167	0.19
147	4.21	33.34	5.31	26.47	150	4.17	33.34	5.33	26.47	158	0.27
196	3.67	33.38	5.49	26.55	200	3.65	33.38	5.50	26.56	150	0.35
246	3.54	33.41	5.14	26.59	250	3.58	33.42	5.08	26.59	147	0.42
295	3.78	33.57	3.90	26.69	300	(3.77)	(33.59)	(3.70)	(26.71)	(136)	(0.49)

58

ATTU; August 5, 1958; 0635, 0542 GCT; 53°00'N, 174°59'W; wind, 280°, 3 kt; weather, fog; sea, moderate.

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
0	8.80	33.19	-	25.75	0	8.80	33.19		25.75	225	0.00
10	8.38	33.14	6.72	25.78	10	8.38	33.14	6.72	25.78	223	0.02
25	8.29	33.14	6.74	25.79	20	8.33	33.14	6.73	25.79	222	0.04
50	5.02	33.21	7.22	26.28	30	7.50	33.16	6.90	25.92	209	0.07
75	3.50	33.23	7.01	26.45	50	5.02	33.21	7.22	26.28	176	0.10
100	3.20	33.26	6.64	26.50	75	3.50	33.23	7.01	26.45	159	0.15
125	3.22	33.31	6.27	26.54	100	3.20	33.26	6.64	26.50	154	0.19
150	2.89	33.31	6.37	26.57	150	2.89	33.31	6.37	26.57	148	0.26
200	3.79	33.61	3.57	26.72	200	3.79	33.61	3.57	26.72	134	0.33
250	3.86	33.76	2.32	26.84	250	3.86	33.76	2.32	26.84	124	0.40
300	3.77	33.83	1.69	26.90	300	3.77	33.83	1.69	26.90	118	0.46
					400	3.66	33.98	1.19	27.03	107	0.57
400	3.66	33.98	1.19	27.03	500	3.50	34.11	0.80	27.15	96	0.67
500	3.50	34.11	0.80	27.15	600	3.42	34.17	0.71	27.21	92	0.77
700	3.32	34.22	0.63	27.26	700	3.32	34.22	0.63	27.26	88	0.86
1050	2.84	34.37	0.52	27.42	800	3.20	34.27	0.57	27.31	83	0.94
					1000	2.92	34.35	0.52	27.40	76	1.10

59

ATTU; August 5, 1958; 2345 GCT; 53°30'N, 175°00'W; wind, calm; weather, fog; sea, smooth.

0	8.60	33.13	-	25.74	0	8.60	33.13		25.74	226	0.00
10	8.17	33.12	6.66	25.80	10	8.17	33.12	6.66	25.80	221	0.02
25	8.12	33.12	6.66	25.80	20	8.14	33.12	6.64	25.80	221	0.04
50	4.34	33.22	7.10	26.36	30	7.14	33.15	6.81	25.97	205	0.06
75	3.36	33.24	6.75	26.47	50	4.34	33.22	7.10	26.36	168	0.10
100	3.12	33.27	6.66	26.52	75	3.36	33.24	6.75	26.47	157	0.14
125	2.89	33.29	6.65	26.55	100	3.12	33.27	6.66	26.52	153	0.18
150	3.00	33.34	5.98	26.58	150	3.00	33.34	5.98	26.58	147	0.26
200	3.86	33.65	3.12	26.75	200	3.86	33.65	3.12	26.75	132	0.33
250	3.79	33.80	2.20	26.88	250	3.79	33.80	2.20	26.88	120	0.39
300	3.74	33.89	1.46	26.95	300	3.74	33.89	1.46	26.95	114	0.45

60

ATTU; August 6, 1958; 0510, 0423 GCT; 54°00'N, 175°00'W; wind, 240°, 1 kt; weather, cloudy; sea, smooth.

0	9.00	33.15	-	25.69	0	9.00	33.15		25.69	231	0.00
10	8.28	33.13	6.64	25.79	10	8.28	33.13	6.64	25.79	222	0.02
25	8.20	33.13	6.66	25.80	20	8.26	33.13	6.66	25.79	222	0.04
50	4.28	33.21	7.17	26.36	30	8.05	33.15	6.82	25.84	218	0.07
75	3.20	33.24	6.91	26.49	50	4.28	33.21	7.17	26.36	168	0.11
100	3.00	33.29	6.54	26.54	75	3.20	33.24	6.91	26.49	156	0.15
125	3.15	33.37	6.07	26.59	100	3.00	33.29	6.54	26.54	150	0.18
150	3.31	33.46	4.80	26.65	150	3.31	33.46	4.80	26.65	141	0.26
200	3.71	33.73	2.44	26.83	200	3.71	33.73	2.44	26.83	124	0.32
250	3.75	33.84	1.64	26.91	250	3.75	33.84	1.64	26.91	117	0.38
300	3.70	33.89	1.31	26.96	300	3.70	33.89	1.31	26.96	113	0.44
					400	3.58	34.04	0.88	27.09	101	0.55
400	3.58	34.04	0.88	27.09	500	3.44	34.14	0.63	27.18	93	0.64
500	3.44	34.14	0.63	27.18	600	3.35	34.18	0.60	27.22	90	0.74
700	3.25	34.22	0.58	27.26	700	3.25	34.22	0.58	27.26	87	0.82
1012	2.89	34.35	0.52	27.40	800	3.14	34.26	0.56	27.30	83	0.91
					1000	2.91	34.34	0.52	27.39	76	1.07

61

ATTU; August 6, 1958; 2340 GCT; 54°30'N, 175°00'W; wind, 260°, 10 kt; weather, overcast; sea, rough.

0	8.50	33.15	-	25.77	0	8.50	33.15		25.77	224	0.00
10	8.45	33.14	6.72	25.77	10	8.45	33.14	6.72	25.77	224	0.02
25	8.25	33.14	6.65	25.80	20	8.40	33.14	6.64	25.78	223	0.04
50	3.98	33.22	7.27	26.40	30	7.12	33.16	6.85	25.98	204	0.06
75	3.21	33.25	6.96	26.49	50	3.98	33.22	7.27	26.40	164	0.10
100	3.02	33.27	6.93	26.53	75	3.21	33.25	6.96	26.49	155	0.14
125	2.89	33.29	6.73	26.55	100	3.02	33.27	6.93	26.53	152	0.18
150	3.08	33.40	5.21	26.62	150	3.08	33.40	5.21	26.62	143	0.25
200	3.78	33.67	3.04	26.77	200	3.78	33.67	3.04	26.77	130	0.32
250	3.85	33.82	2.03	26.89	250	3.85	33.82	2.03	26.89	120	0.38
300	3.80	33.89	1.61	26.95	300	3.80	33.89	1.61	26.95	114	0.44

SBL

MV ATTU

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
62	ATTU; August 7, 1958; 0513, 0431 GCT; 55°01'N, 175°00'W; wind, 240°, 20 kt; weather, overcast; sea, rough.										
0	9.00	33.15	-	25.69	0	9.00	33.15		25.69	231	0.00
10	8.90	33.12	6.54	25.68	10	8.90	33.12	6.54	25.68	232	0.02
25	8.56	33.12	6.66	25.74	20	8.83	33.12	6.61	25.70	231	0.05
50	4.76	33.21	7.19	26.31	30	7.62	33.14	6.83	25.89	212	0.07
75	3.21	33.23	6.91	26.48	50	4.76	33.21	7.19	26.31	173	0.11
100	3.03	33.22	6.87	26.49	75	3.21	33.23	6.91	26.48	157	0.15
125	2.92	33.28	6.76	26.54	100	3.03	33.22	6.87	26.49	156	0.19
150	3.08	33.36	5.88	26.59	150	3.08	33.36	5.88	26.59	146	0.26
200	3.65	33.58	3.84	26.71	200	3.65	33.58	3.84	26.71	135	0.33
250	3.80	33.73	3.61	26.82	250	3.80	33.73	3.61	26.82	126	0.40
300	3.78	33.86	1.80	26.92	300	3.78	33.86	1.80	26.92	116	0.46
					400	3.73	34.01	1.10	27.05	105	0.57
374	3.79	33.98	1.21	27.02	500	3.55	34.10	0.80	27.14	97	0.67
468	3.59	34.08	0.85	27.12	600	3.41	34.17	0.65	27.21	91	0.76
670	3.32	34.22	0.58	27.26	700	3.28	34.24	0.56	27.28	86	0.85
1022	2.85	34.39	0.56	27.43	800	3.15	34.29	0.50	27.33	81	0.94
					1000	2.88	34.38	0.55	27.42	73	1.09
63	ATTU; August 10, 1958; 0425 GCT; 52°00'N, 172°30'W; wind, 210°, 12 kt; weather, overcast; sea, rough.										
0	6.60	33.10	-	26.00	0	6.60	33.10		26.00	202	0.00
10	5.89	33.11	5.36	26.10	10	5.89	33.11	5.36	26.10	192	0.02
20	5.72	33.20	5.32	26.19	20	5.72	33.20	5.32	26.19	184	0.04
30	5.63	33.21	5.21	26.21	30	5.63	33.21	5.21	26.21	182	0.06
40	5.36	33.25	4.83	26.27	50	5.10	33.31	4.28	26.35	169	0.09
50	5.10	33.31	4.28	26.35	75	4.90	33.40	4.17	26.44	160	0.13
70	4.93	33.38	4.30	26.42	100	4.81	33.49	3.55	26.52	153	0.17
90	4.83	33.45	3.77	26.49	150	4.65	33.74	2.40	26.74	133	0.24
120	4.76	33.58	3.10	26.60							
150	4.65	33.74	2.40	26.74							
175	3.95	33.78	2.26	26.84							
64	ATTU; August 16, 1958; 1431 GCT; 52°36'N, 165°22'W; wind, calm; weather, partly cloudy; sea, smooth.										
0	10.60	32.59	-	24.99	0	10.60	32.59		24.99	297	0.00
10	10.68	32.54	6.42	24.94	10	10.68	32.54	6.42	24.94	303	0.03
25	10.70	32.53	6.32	24.93	20	10.70	32.53	6.33	24.93	304	0.06
50	5.21	32.84	6.54	25.96	30	10.62	32.60	6.47	25.00	298	0.09
75	4.36	33.11	5.38	26.27	50	5.21	32.84	6.54	25.96	206	0.14
100	4.17	33.49	3.27	26.59	75	4.36	33.11	5.38	26.27	176	0.19
125	4.17	33.77	1.80	26.81	100	4.17	33.49	3.27	26.59	146	0.23
150	4.17	33.90	1.34	26.92	150	4.17	33.90	1.34	26.92	116	0.29
200	4.10	33.98	0.56	26.99	200	4.10	33.98	0.56	26.99	110	0.35
250	3.84	34.04	0.45	27.06	250	3.84	34.04	0.45	27.06	103	0.40
300	3.94	34.09	0.39	27.09	300	3.94	34.09	0.39	27.09	101	0.45
65	ATTU; August 17, 1958; 0425, 0337 GCT; 52°00'N, 165°00'W; wind, calm; weather, partly cloudy; sea, smooth.										
0	13.10	32.68	-	24.60	0	13.10	32.68		24.60	335	0.00
10	9.95	32.62	6.48	25.13	10	9.95	32.62	6.48	25.13	285	0.03
25	9.87	32.61	6.42	25.13	20	9.90	32.61	6.43	25.13	285	0.06
50	5.20	32.83	6.89	25.96	30	9.81	32.66	6.61	25.18	280	0.09
75	4.46	32.97	6.18	26.15	50	5.20	32.83	6.89	25.96	206	0.14
100	3.95	33.48	3.36	26.61	75	4.46	32.97	6.18	26.15	188	0.18
125	4.01	33.78	1.69	26.84	100	3.95	33.48	3.36	26.61	145	0.23
149	3.97	33.87	1.20	26.91	150	3.97	33.87	1.19	26.91	116	0.29
198	3.92	33.95	0.73	26.98	200	3.91	33.95	0.71	26.98	110	0.35
248	3.79	34.01	0.41	27.04	250	3.79	34.01	0.41	27.04	105	0.40
297	3.84	34.06	0.43	27.08	300	3.84	34.06	0.43	27.08	102	0.46
					400	3.69	34.15	0.46	27.16	94	0.55
396	3.70	34.15	0.46	27.16	500	3.51	34.22	0.43	27.24	88	0.64
495	3.52	34.22	0.43	27.24	600	3.32	34.28	0.43	27.30	82	0.73
693	3.16	34.32	0.45	27.35	700	3.15	34.32	0.45	27.35	78	0.81
1040	2.71	34.43	0.62	27.48	800	3.00	34.36	0.48	27.40	74	0.88
					1000	2.75	34.42	0.59	27.47	68	1.03

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m

66

ATTU; August 18, 1958; 0002 GCT; 51°30'N, 165°00'W; wind, 240°, 1 kt; weather, sky obscured; sea, smooth.

0	10.10	32.70	-	25.16	0	10.10	32.70		25.16	281	0.00
10	9.86	32.65	6.32	25.16	10	9.86	32.65	6.32	25.16	281	0.03
25	9.75	32.64	6.44	25.17	20	9.80	32.64	6.38	25.17	281	0.06
50	5.31	32.80	6.83	25.92	30	9.72	32.65	6.71	25.19	280	0.08
75	4.03	33.21	4.85	26.38	50	5.31	32.80	6.83	25.92	210	0.13
100	4.03	33.59	2.71	26.68	75	4.03	33.21	4.85	26.38	166	0.18
125	4.10	33.82	1.42	26.86	100	4.03	33.59	2.71	26.68	137	0.22
150	4.06	33.90	0.90	26.93	150	4.06	33.90	0.90	26.93	115	0.28
200	3.95	33.97	0.56	26.99	200	3.95	33.97	0.56	26.99	109	0.34
250	3.83	34.03	0.50	27.05	250	3.83	34.03	0.50	27.05	104	0.39
300	3.77	34.07	0.53	27.09	300	3.77	34.07	0.53	27.09	100	0.44

67

ATTU; August 18, 1958; 0602, 0527 GCT; 51°00'N, 165°00'W; wind, 240°, 2 kt; weather, sky obscured; sea, smooth.

0	10.20	32.67	-	25.12	0	10.20	32.67		25.12	285	0.00
10	9.78	32.65	6.59	25.18	10	9.78	32.65	6.59	25.18	280	0.03
25	9.70	32.65	6.43	25.19	20	9.73	32.65	6.44	25.19	279	0.06
50	4.79	32.83	6.91	26.00	30	9.65	32.67	6.73	25.21	277	0.08
75	4.02	33.23	4.79	26.40	50	4.79	32.83	6.91	26.00	202	0.13
100	3.95	33.74	2.31	26.81	75	4.02	33.23	4.79	26.40	164	0.18
125	4.10	33.86	1.27	26.89	100	3.95	33.74	2.31	26.81	125	0.21
150	4.10	33.89	0.95	26.92	150	4.10	33.89	0.95	26.92	116	0.27
200	3.97	33.97	0.59	26.99	200	3.97	33.97	0.59	26.99	109	0.33
250	3.83	34.03	0.56	27.05	250	3.83	34.03	0.56	27.05	104	0.38
300	3.75	34.08	0.46	27.10	300	3.75	34.08	0.46	27.10	99	0.43
					400	3.65		0.44			
392	3.66	-	0.45		500	3.46		0.39			
490	3.48	-	0.39		600	3.26		0.41			
685	3.11	-	0.45		700	3.08		0.46			
1028	2.62	-	0.63		800	2.92		0.49			
					1000	2.65		0.60			

68

ATTU; August 19, 1958; 0025 GCT; 50°30'N, 165°00'W; wind, 230°, 5 kt; weather, sky obscured; sea, slight.

0	9.90	32.69	-	25.19	0	9.90	32.69		25.19	279	0.00
10	9.89	32.67	6.50	25.17	10	9.89	32.67	6.50	25.17	280	0.03
25	9.72	32.66	6.54	25.19	20	9.79	32.66	6.53	25.18	280	0.06
50	9.10	32.69	6.60	25.32	30	9.71	32.67	6.53	25.20	278	0.08
75	4.72	32.86	6.90	26.03	50	9.10	32.69	6.60	25.32	267	0.14
100	4.05	33.21	5.14	26.38	75	4.72	32.86	6.90	26.03	199	0.20
125	3.84	33.73	2.54	26.82	100	4.05	33.21	5.14	26.38	166	0.24
150	3.80	33.80	2.09	26.87	150	3.80	33.80	2.09	26.87	120	0.31
200	3.74	33.89	1.36	26.95	200	3.74	33.89	1.36	26.95	113	0.37
250	3.71	33.97	1.09	27.02	250	3.71	33.97	1.09	27.02	107	0.43
300	3.72	34.05	0.68	27.08	300	3.72	34.05	0.68	27.08	101	0.48

69

ATTU; August 19, 1958; 0600, 0513 GCT; 50°00'N, 165°00'W; wind, 250°, 3 kt; weather, sky obscured; sea, smooth.

0	9.80	32.75	-	25.25	0	9.80	32.75		25.25	273	0.00
10	9.88	32.73	6.38	25.22	10	9.88	32.73	6.38	25.22	276	0.03
25	9.60	32.70	6.44	25.25	20	9.70	32.70	6.40	25.23	275	0.06
50	5.37	32.87	7.11	25.97	30	9.57	32.75	6.64	25.29	270	0.08
75	4.46	32.90	6.97	26.09	50	5.37	32.87	7.11	25.97	205	0.13
100	3.85	33.21	5.34	26.40	75	4.46	32.90	6.97	26.09	193	0.18
125	3.78	33.71	2.82	26.81	100	3.85	33.21	5.34	26.40	164	0.22
150	3.72	33.79	2.33	26.87	150	3.72	33.79	2.33	26.87	120	0.30
200	3.67	33.87	1.72	26.94	200	3.67	33.87	1.72	26.94	114	0.35
250	3.59	33.96	1.30	27.02	250	3.59	33.96	1.30	27.02	106	0.41
300	3.65	34.02	0.96	27.06	300	3.65	34.02	0.96	27.06	103	0.46
					400	3.52	34.13	0.84	27.16	94	0.56
391	3.53	34.12	0.86	27.16	500	3.42	34.22	0.66	27.25	87	0.65
489	3.44	34.21	0.67	27.24	600	3.28	34.27	0.59	27.30	83	0.74
685	3.16	34.31	0.56	27.34	700	3.14	34.32	0.56	27.35	78	0.82
1028	2.64	34.43	0.64	27.48	800	2.99	34.36	0.55	27.40	74	0.89
					1000	2.68	34.42	0.62	27.47	68	1.03

SBL

MV ATTU

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m
70	ATTU; August 20, 1958; 0405 GCT; 50°00'N, 163°00'W; wind, 100°, 2 kt; weather, sky obscured; sea, smooth.										
0	9.80	32.79	-	25.28	0	9.80	32.79		25.28	270	0.00
10	9.80	32.74	6.48	25.24	10	9.80	32.74	6.48	25.24	274	0.03
25	8.58	32.78	6.61	25.47	20	9.05	32.76	6.55	25.38	261	0.05
50	5.20	32.99	7.07	26.08	30	7.68	32.84	6.75	25.65	236	0.08
75	4.67	32.99	6.89	26.14	50	5.20	32.99	7.07	26.08	194	0.12
100	3.85	33.00	5.24	26.23	75	4.67	32.99	6.89	26.14	189	0.17
125	3.70	33.74	2.83	26.84	100	3.85	33.00	5.24	26.23	180	0.22
150	3.65	33.80	2.58	26.89	150	3.65	33.80	2.58	26.89	118	0.29
200	3.58	33.88	1.84	26.96	200	3.58	33.88	1.84	26.96	112	0.35
250	3.57	33.94	1.48	27.01	250	3.57	33.94	1.48	27.01	108	0.40
300	3.50	34.00	1.15	27.06	300	3.50	34.00	1.15	27.06	103	0.46
71	ATTU; August 20, 1958; 1200 GCT; 50°00'N, 161°40'W; wind, 010°, 20 kt; weather, thick drizzle; sea, rough.										
0	8.50	32.73	-	25.44	0	8.50	32.73		25.44	255	0.00
10	9.90	32.69	6.43	25.19	10	9.90	32.69	6.43	25.19	279	0.03
24	9.70	32.70	6.35	25.23	20	9.78	32.69	6.34	25.21	277	0.06
49	6.42	32.86	6.99	25.83	30	9.62	32.75	6.60	25.28	270	0.08
73	4.76	32.91	6.59	26.07	50	6.33	32.86	6.97	25.84	217	0.13
97	4.20	33.02	6.47	26.22	75	4.71	32.90	6.69	26.07	196	0.18
121	3.80	33.66	3.36	26.76	100	4.13	33.13	5.97	26.31	173	0.23
146	3.74	33.78	2.43	26.86	150	3.74	33.79	2.36	26.87	120	0.30
195	3.66	33.87	1.70	26.94	200	3.62	33.88	1.64	26.96	112	0.36
244	3.36	33.96	1.13	27.04	250	3.36	33.97	1.08	27.05	104	0.41
291	3.35	34.04	0.85	27.11	300	(3.35)	(34.06)	(0.83)	(27.13)	(97)	(0.46)
72	ATTU; August 24, 1958; 2235 GCT; 53°03'N, 146°07'W; wind, 190°, 15 kt; weather, partly cloudy; sea, rough.										
0	11.50	32.68		24.90	0	11.50	32.68		24.90	306	0.00
10	11.68	32.61		24.82	10	11.68	32.61		24.82	314	0.03
25	11.54	32.59		24.83	20	11.60	32.59		24.81	315	0.06
50	7.77	32.70		25.52	30	11.52	32.62		24.85	311	0.09
75	6.16	32.75		25.78	50	7.77	32.70		25.52	248	0.15
99	5.42	32.85		25.95	75	6.16	32.75		25.78	223	0.21
124	4.84	33.05		26.17	100	5.39	32.85		25.95	207	0.26
148	4.38	33.53		26.60	150	4.37	33.54		26.61	145	0.35
198	4.06	33.78		26.83	200	4.02	33.79		26.84	123	0.42
248	3.47	33.94		27.02	250	3.48	33.94		27.02	107	0.47
297	3.73	34.14		27.15	300	(3.75)	(34.16)		(27.17)	(93)	(0.52)
73	ATTU; August 25, 1958; 0614, 0540 GCT; 52°35'N, 145°03'W; wind, 200°, 7 kt; weather, partly cloudy; sea, moderate.										
0	11.80	32.61		24.79	0	11.80	32.61		24.79	316	0.00
10	12.11	32.57		24.70	10	12.11	32.57		24.70	325	0.03
23	12.00	32.56		24.72	20	12.08	32.56		24.70	325	0.06
48	7.20	32.70		25.60	30	11.90	32.61		24.77	319	0.10
72	6.22	32.70		25.73	50	7.10	32.70		25.62	239	0.15
96	5.61	32.75		25.85	75	6.14	32.69		25.73	228	0.21
120	4.98	33.11		26.20	100	5.49	32.81		25.91	211	0.27
144	4.61	33.41		26.48	150	4.53	33.46		26.53	153	0.36
192	4.09	33.75		26.81	200	4.03	33.79		26.84	123	0.43
240	3.82	33.96		27.00	250	3.81	34.00		27.03	106	0.48
288	3.78	34.13		27.14	300	3.76	34.14		27.15	95	0.53
					400	3.55	34.23		27.24	87	0.62
384	3.59	34.22		27.23	500	3.38	34.27		27.29	83	0.71
481	3.39	34.27		27.29	600	3.31	34.29		27.31	82	0.79
675	3.24	34.31		27.33	700	3.20	34.32		27.35	79	0.87
990	2.80	34.40		27.45	800	3.04	34.37		27.40	74	0.95
					1000	(2.79)	(34.40)		(27.45)	(70)	(1.09)

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
ATTU; August 26, 1958; 0421 GCT; 53°26'N, 143°10'W; wind, 190°, 7 kt; weather, sky obscured; sea, moderate.											74
0	12.90	32.27		24.32	0	12.90	32.27		24.32	361	0.00
10	13.38	32.18		24.16	10	13.38	32.18		24.16	377	0.04
24	13.40	32.17		24.15	20	13.39	32.17		24.15	378	0.08
48	7.28	32.22		25.22	30	13.35	32.17		24.16	378	0.11
72	6.41	32.61		25.64	50	7.19	32.26		25.26	273	0.18
96	5.98	32.83		25.86	75	6.33	32.63		25.66	234	0.24
120	5.98	33.21		26.16	100	5.98	32.90		25.92	210	0.30
145	5.92	33.56		26.45	150	5.89	33.60		26.48	158	0.39
193	5.53	33.83		26.71	200	5.39	33.84		26.73	134	0.46
290	4.05	33.91		26.94	250	4.56	33.88		26.86	122	0.53
509	3.86	34.12		27.12	300	3.95	33.92		26.96	114	0.58
					400	3.41	34.01		27.08	102	0.69
					500	3.78	34.11		27.12	99	0.79
ATTU; August 26, 1958; 1555, 1517 GCT; 54°13'N, 141°33'W; wind, 240°, 8 kt; weather, sky obscured; sea, moderate.											75
0	13.70	32.36		24.23	0	13.70	32.36		24.23	370	0.00
10	13.88	32.32		24.16	10	13.88	32.32		24.16	376	0.04
25	12.94	32.38		24.40	20	13.46	32.36		24.28	366	0.07
50	7.24	32.56		25.49	30	11.42	32.42		24.72	324	0.11
74	6.20	32.65		25.70	50	7.24	32.56		25.49	251	0.17
99	6.02	32.85		25.88	75	6.19	32.66		25.70	230	0.23
124	5.97	33.17		26.13	100	6.02	32.86		25.88	214	0.28
148	5.63	33.50		26.44	150	5.62	33.52		26.45	160	0.38
198	5.38	33.81		26.71	200	5.36	33.81		26.71	136	0.45
297	4.51	33.94		26.91	250	4.88	33.88		26.82	126	0.52
					300	4.49	33.94		26.91	118	0.58
520	3.83	34.14		27.14	400	3.98	34.05		27.06	105	0.69
					500	3.82	34.13		27.13	98	0.79
ATTU; August 27, 1958; 0412, 0320 GCT; 55°00'N, 140°00'W; wind, 270°, 5 kt; weather, overcast; sea, slight.											76
0	14.10	32.37		24.16	0	14.10	32.37		24.16	377	0.00
10	14.40	32.34		24.07	10	14.40	32.34		24.07	385	0.04
24	14.10	32.35		24.14	20	14.34	32.34		24.09	384	0.08
49	7.66	32.54		25.41	30	12.05	32.40		24.58	337	0.11
73	6.64	32.66		25.65	50	7.60	32.54		25.42	257	0.17
98	6.30	33.11		26.05	75	6.59	32.70		25.69	232	0.23
122	6.54	33.49		26.31	100	6.32	33.15		26.07	196	0.29
146	6.76	33.74		26.48	150	6.74	33.75		26.49	157	0.37
195	6.45	33.87		26.62	200	6.40	33.87		26.63	144	0.45
244	5.98	33.91		26.72	250	5.92	33.91		26.72	136	0.52
293	5.50	33.94		26.80	300	5.44	33.95		26.81	128	0.58
					400	4.75	34.05		26.97	113	0.71
391	4.78	34.04		26.96	500	4.41	34.14		27.08	104	0.82
489	4.45	34.13		27.07	600	4.07	34.18		27.15	98	0.92
685	3.82	34.22		27.21	700	3.78	34.23		27.22	92	1.01
1028	3.13	34.36		27.38	800	3.53	34.27		27.27	87	1.10
					1000	3.17	34.35		27.37	78	1.26
ATTU; August 28, 1958; 0511, 0439 GCT; 54°05'N, 138°12'W; wind, 140°, 2 kt; weather, moderate rain; sea, slight.											77
0	14.70	32.55		24.17	0	14.70	32.55		24.17	376	0.00
10	14.78	32.53		24.14	10	14.78	32.53		24.14	379	0.04
25	14.64	32.54		24.18	20	14.73	32.53		24.15	378	0.08
50	7.91	32.68		25.49	30	14.40	32.58		24.26	368	0.11
74	6.94	32.70		25.64	50	7.91	32.68		25.49	251	0.18
99	6.22	32.75		25.77	75	6.91	32.70		25.64	236	0.24
123	5.78	33.10		26.10	100	6.20	32.77		25.79	223	0.29
148	5.35	33.40		26.39	150	5.33	33.42		26.41	164	0.39
197	4.92	33.74		26.71	200	4.90	33.75		26.72	135	0.46
296	4.45	33.91		26.89	250	4.65	33.84		26.82	126	0.53
					300	4.43	33.92		26.90	118	0.59
518	3.95	34.11		27.11	400	4.12	34.03		27.02	108	0.70
					500	3.96	34.10		27.10	102	0.81

SBL

MV ATTU

78

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
ATTU; August 29, 1958; 2030 GCT; 52°00'N, 131°35'W; wind, 180°, 2 kt; weather, cloudy; sea, moderate.											
0	14.90	31.75		23.51	0	14.90	31.75		23.51	438	0.00
10	14.88	31.75		23.52	10	14.88	31.75		23.52	438	0.04
25	14.60	31.88		23.68	20	14.81	31.83		23.59	431	0.09
50	11.76	32.13		24.43	30	14.02	31.91		23.82	410	0.13
75	9.02	32.65		25.30	50	11.76	32.13		24.43	352	0.20
99	8.26	32.78		25.52	75	9.02	32.65		25.30	270	0.28
124	7.80	33.03		25.78	100	8.24	32.79		25.53	248	0.35
149	7.24	33.31		26.08	150	7.23	33.32		26.09	196	0.46
199	6.69	33.61		26.39	200	6.68	33.61		26.39	167	0.55
298	5.88	33.93		26.74	250	6.25	33.79		26.59	149	0.63
521	4.85	34.10		27.00	300	5.87	33.93		26.75	135	0.70
					400	5.27	34.10		26.95	116	0.82
					500	4.90	34.12		27.01	111	0.94

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
PIONEER; May 18, 1958; 2000 GCT; 54°18'N, 160°00'W; wind, 180°, 18 kt; weather, sky obscured; sea, rough.											1
0	4.20	32.11	-	25.49	0	4.20	32.11		25.49	250	0.00
9	5.42	32.11	7.92	25.36	10	5.42	32.11	7.90	25.36	262	0.03
23	5.35	32.11	7.47	25.37	20	5.37	32.11	7.58	25.37	262	0.05
46	5.67	32.51	6.84	25.65	30	5.39	32.13	7.29	25.38	261	0.08
69	5.60	32.57	6.79	25.71	50	5.67	32.51	6.90	25.65	235	0.13
93	5.30	32.74	5.82	25.87	75	5.48	32.60	6.55	25.74	227	0.19
117	5.45	33.00	4.83	26.06	100	5.35	32.83	5.47	25.94	208	0.24
141	5.52	33.12	4.46	26.15	150	5.57	33.17	4.23	26.18	186	0.34
189	5.62	33.41	3.36	26.37	200	5.55	33.50	3.11	26.45	162	0.43
238	5.31	33.73	2.46	26.66	250	5.21	33.75	2.33	26.68	140	0.50
287	5.01	33.80	2.06	26.75	300	(4.98)	(33.82)	(2.02)	(26.76)	(132)	(0.57)
PIONEER; May 18, 1958; 2342 GCT; 54°00'N, 160°00'W; wind, 180°, 12 kt; weather, sky obscured; sea, rough.											2
0	4.40	32.65	-	25.90	0	4.40	32.65		25.90	211	0.00
9	5.73	32.65	7.10	25.75	10	5.73	32.65	7.09	25.75	225	0.02
23	5.73	32.65	7.03	25.75	20	5.73	32.65	7.04	25.75	225	0.04
46	5.69	32.65	6.99	25.76	30	5.74	32.65	7.02	25.75	226	0.07
69	5.42	32.65	6.92	25.79	50	5.67	32.64	6.99	25.75	226	0.11
94	4.68	32.81	6.61	26.00	75	5.12	32.67	7.00	25.84	218	0.17
117	5.15	33.12	4.86	26.19	100	4.86	32.89	6.08	26.04	198	0.22
141	4.98	33.44	3.82	26.46	150	5.02	33.53	3.43	26.53	153	0.31
189	5.02	33.81	2.13	26.75	200	4.95	33.84	1.96	26.78	129	0.38
237	4.64	33.91	1.42	26.87	250	4.48	33.92	1.15	26.90	119	0.44
286	4.08	33.95	0.72	26.97	300	(3.94)	(33.96)	(0.67)	(26.99)	(110)	(0.50)
PIONEER; May 27, 1958; 2150, 2035 GCT; 52°36'N, 178°58'W; wind, 100°, 5 kt; weather, intermittent slight drizzle; sea, slight.											3
0	4.10	33.12	-	26.30	0	4.10	33.12		26.30	173	0.00
9	4.55	33.16	6.97	26.29	10	4.55	33.16	6.97	26.29	174	0.02
23	4.50	33.16	6.92	26.30	20	4.51	33.16	6.93	26.29	174	0.03
47	4.43	33.18	6.79	26.32	30	4.49	33.16	6.88	26.30	174	0.05
71	4.24	33.21	6.65	26.36	50	4.40	33.18	6.76	26.32	172	0.09
94	4.15	33.25	6.53	26.40	75	4.23	33.22	6.66	26.37	167	0.13
118	3.90	33.30	5.94	26.47	100	4.08	33.27	6.35	26.43	162	0.17
142	3.72	33.24	5.64	26.44	150	3.68	33.24	5.67	26.44	161	0.25
191	3.60	33.31	5.42	26.50	200	3.65	33.35	5.20	26.53	152	0.33
240	3.81	33.49	4.32	26.63	250	3.81	33.52	4.16	26.65	142	0.40
289	3.83	33.63	3.49	26.74	300	3.85	33.66	3.29	26.76	132	0.47
					400	3.89	33.87	1.87	26.92	117	0.60
386	3.91	33.84	2.00	26.90	500	3.71	34.02	1.15	27.06	105	0.71
484	3.74	34.01	1.21	27.05	600	3.54	34.10	0.82	27.14	98	0.81
682	3.41	34.16	0.63	27.20	700	3.38	34.17	0.59	27.21	92	0.90
1028	2.90	34.34	0.52	27.39	800	3.23	34.23	0.46	27.27	86	0.99
					1000	2.94	34.33	0.48	27.38	77	1.16

SBL

MV PIONEER

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m
4	PIONEER; May 28, 1958; 0848, 0651 GCT; 53°00'N, 180°00'; wind, 060°, 10 kt; weather, fog in patches; sea, slight.										
0	3.20	33.17	-	26.43	0	3.20	33.17		26.43	161	0.00
10	3.59	33.20	7.38	26.42	10	3.59	33.20	7.38	26.42	162	0.02
25	3.65	33.20	7.27	26.41	20	3.66	33.20	7.30	26.41	163	0.03
49	3.27	33.21	7.20	26.46	30	3.56	33.20	7.26	26.42	162	0.05
74	3.02	33.25	7.13	26.51	50	3.26	33.21	7.20	26.46	158	0.08
99	2.90	33.26	7.08	26.53	75	3.01	33.25	7.13	26.51	153	0.12
123	2.82	33.30	6.98	26.57	100	2.89	33.26	7.11	26.53	152	0.16
148	3.20	33.46	5.07	26.66	150	3.22	33.47	4.98	26.67	139	0.23
					200	3.62	33.67	3.10	26.79	128	0.30
389	3.55	34.09	0.91	27.13	250	3.85	33.84	1.77	26.90	118	0.36
487	3.43	34.19	0.71	27.22	300	3.72	33.94	1.38	26.99	110	0.42
684	3.25	34.28	0.46	27.31	400	3.54	34.10	0.88	27.14	97	0.52
1030	2.65	34.44	0.57	27.49	500	3.42	34.20	0.68	27.23	89	0.61
					600	3.34	34.24	0.54	27.27	86	0.70
					700	3.23	34.29	0.45	27.32	81	0.78
					800	3.09	34.33	0.41	27.36	78	0.86
					1000	2.72	34.43	0.54	27.48	67	1.01
5	PIONEER; May 29, 1958; 0127 GCT; 53°04'N, 179°05'E; wind, 090°, 12 kt; weather, sky obscured; sea, slight.										
0	3.50	33.23	-	26.45	0	3.50	33.23		26.45	159	0.00
9	3.82	33.20	6.99	26.40	10	3.81	33.20	7.01	26.40	164	0.02
24	3.65	33.22	7.17	26.43	20	3.69	33.22	7.15	26.42	161	0.03
48	3.50	33.22	6.98	26.44	30	3.62	33.22	7.11	26.43	161	0.05
72	3.24	33.26	6.83	26.50	50	3.48	33.22	6.97	26.44	160	0.08
96	3.05	33.28	6.52	26.53	75	3.22	33.26	6.80	26.50	154	0.12
120	2.85	33.34	6.00	26.60	100	2.97	33.28	6.50	26.54	151	0.16
144	3.35	33.49	4.57	26.67	150	3.43	33.52	4.31	26.69	137	0.23
193	3.81	33.69	2.81	26.79	200	3.82	33.71	2.65	26.80	127	0.30
242	3.85	33.84	1.88	26.90	250	3.84	33.86	1.75	26.92	116	0.36
290	3.76	33.93	1.30	26.98	300	(3.73)	(33.94)	(1.25)	(26.99)	(110)	(0.41)
6	PIONEER; May 29, 1958; 0756, 0639 GCT; 53°00'N, 178°15'E; wind, 140°, 5 kt; weather, fog; sea, calm.										
0	3.40	33.23	-	26.46	0	3.40	33.23		26.46	158	0.00
10	3.77	33.23	7.30	26.42	10	3.77	33.23	7.30	26.42	161	0.02
25	3.66	33.23	7.20	26.44	20	3.69	33.23	7.24	26.43	161	0.03
49	3.52	33.23	7.10	26.45	30	3.65	33.23	7.17	26.44	160	0.05
74	3.10	33.25	7.10	26.50	50	3.50	33.23	7.10	26.45	159	0.08
98	2.97	33.27	6.94	26.53	75	3.09	33.25	7.10	26.50	154	0.12
123	2.82	33.27	6.69	26.54	100	2.95	33.27	6.96	26.53	152	0.16
147	2.87	33.38	5.53	26.63	150	2.95	33.41	5.29	26.64	141	0.23
197	3.82	33.73	2.45	26.82	200	3.82	33.74	2.39	26.83	125	0.30
246	3.81	33.86	1.59	26.92	250	3.81	33.87	1.55	26.93	115	0.36
295	3.77	33.93	1.16	26.98	300	3.76	33.94	1.14	26.99	110	0.41
					400	3.62	34.07	0.77	27.11	100	0.52
387	3.65	34.05	0.82	27.09	500	3.45	34.16	0.56	27.20	92	0.61
485	3.47	34.15	0.57	27.19	600	3.32	34.21	0.53	27.25	88	0.70
680	3.21	34.25	0.52	27.29	700	3.18	34.26	0.52	27.30	83	0.79
1021	2.72	34.39	0.56	27.45	800	3.04	34.30	0.52	27.35	79	0.87
					1000	2.75	34.38	0.55	27.43	71	1.02

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m

7

PIONEER; May 30, 1958; 0449 GCT; 53°29'N, 176°42'E; wind, 120°, 8 kt; weather, sky obscured; sea, moderate.

0	4.20	33.08	-	26.26	0	4.20	33.08		26.26	177	0.00
10	4.55	33.06	7.02	26.21	10	4.55	33.06	7.02	26.21	182	0.02
25	3.70	33.14	7.30	26.36	20	3.93	33.12	7.26	26.32	171	0.04
49	3.32	33.16	6.94	26.41	30	3.61	33.14	7.18	26.37	167	0.05
74	3.00	33.17	7.25	26.45	50	3.30	33.16	6.97	26.41	163	0.09
98	2.84	33.20	7.01	26.49	75	2.99	33.17	7.25	26.45	159	0.13
122	2.74	33.27	6.34	26.55	100	2.83	33.21	6.96	26.50	155	0.16
146	2.75	33.33	5.62	26.60	150	2.91	33.37	5.29	26.62	144	0.24
196	4.08	33.73	2.51	26.79	200	4.07	33.74	2.43	26.80	127	0.31
245	3.93	33.87	1.75	26.92	250	3.92	33.88	1.70	26.93	116	0.37
319	3.80	33.98	1.60	27.02	300	3.82	33.96	1.52	27.00	109	0.42

8

PIONEER; May 30, 1958; 1605, 1457 GCT; 54°00'N, 175°00'E; wind, 040°, 5 kt; weather, sky obscured; sea, slight.

0	3.20	33.18	-	26.44	0	3.20	33.18		26.44	160	0.00
10	3.72	33.18	7.29	26.39	10	3.72	33.18	7.29	26.39	165	0.02
25	3.62	33.15	7.34	26.38	20	3.65	33.16	7.32	26.38	166	0.03
50	3.54	33.15	7.24	26.38	30	3.65	33.14	7.31	26.37	167	0.05
74	2.96	33.21	7.18	26.48	50	3.54	33.15	7.24	26.38	166	0.08
99	2.82	33.24	6.94	26.52	75	2.96	33.21	7.18	26.48	156	0.12
123	2.34	33.28	6.51	26.59	100	2.78	33.24	6.94	26.52	152	0.16
148	3.07	33.45	5.01	26.67	150	3.11	33.47	4.86	26.68	138	0.24
197	3.75	33.76	2.31	26.85	200	3.76	33.77	2.22	26.85	122	0.30
246	3.87	33.89	1.29	26.94	250	3.87	33.90	1.28	26.95	114	0.36
295	3.84	33.98	1.13	27.01	300	3.83	33.99	1.10	27.02	107	0.41
					400	3.63	34.10	0.66	27.13	98	0.52
387	3.65	34.09	0.68	27.12	500	3.46	34.19	0.53	27.22	90	0.61
485	3.48	34.18	0.53	27.21	600	3.33	34.24	0.50	27.27	85	0.70
682	3.22	34.28	0.50	27.31	700	3.20	34.29	0.50	27.32	81	0.78
1026	2.76	34.41	0.54	27.46	800	3.06	34.33	0.50	27.37	77	0.86
					1000	2.79	34.40	0.53	27.45	70	1.01

9

PIONEER; May 30, 1958; 2200 GCT; 54°33'N, 174°27'E; wind, 040°, 5 kt; weather, sky obscured; sea, slight.

0	3.30	33.15	-	26.41	0	3.30	33.15		26.41	163	0.00
10	3.44	33.16	7.37	26.40	10	3.44	33.16	7.37	26.40	164	0.02
25	3.20	33.17	7.30	26.43	20	3.27	33.17	7.32	26.42	161	0.03
49	3.06	33.19	7.19	26.46	30	3.18	33.18	7.26	26.44	160	0.05
74	2.84	33.19	7.29	26.48	50	3.05	33.19	7.20	26.46	158	0.08
98	2.52	33.22	7.18	26.53	75	2.83	33.19	7.29	26.48	156	0.12
123	1.88	33.23	6.74	26.59	100	2.41	33.21	7.21	26.53	152	0.16
147	2.89	33.47	4.63	26.70	150	2.97	33.50	4.38	26.71	135	0.23
197	3.80	33.85	1.71	26.91	200	3.80	33.85	1.67	26.91	116	0.29
246	3.84	33.92	1.13	26.97	250	3.84	33.93	1.10	26.97	111	0.35
320	3.75	34.02	0.68	27.05	300	3.79	33.99	0.75	27.03	107	0.40

SBL

MV PIONEER

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m
10	PIONEER; May 31, 1958; 0448, 0327 GCT; 55°00'N, 174°00'E; wind, 360°, 15 kt; weather, intermittent slight drizzle; sea, moderate.										
0	2.70	33.22	-	26.51	0	2.70	33.22		26.51	153	0.00
10	3.08	33.22	7.47	26.48	10	3.08	33.22	7.47	26.48	156	0.02
24	2.90	33.22	7.50	26.50	20	2.95	33.22	7.49	26.49	155	0.03
48	2.72	33.22	7.59	26.51	30	2.85	33.22	7.55	26.50	154	0.05
72	2.58	33.22	7.48	26.52	50	2.71	33.22	7.58	26.51	153	0.08
96	2.35	33.22	7.43	26.54	75	2.55	33.22	7.47	26.53	152	0.12
120	2.22	33.23	7.36	26.56	100	2.37	33.22	7.44	26.54	151	0.15
144	1.42	33.23	7.04	26.62	150	1.82	33.32	6.13	26.66	139	0.22
192	3.65	33.78	1.77	26.87	200	3.66	33.80	1.66	26.89	119	0.29
240	3.70	33.90	1.19	26.96	250	3.70	33.91	1.10	26.97	111	0.35
289	3.67	33.97	0.84	27.02	300	3.65	33.98	0.81	27.03	106	0.40
					400	3.51	34.10	0.59	27.14	96	0.50
372	3.55	34.07	0.63	27.11	500	3.39	34.18	0.50	27.22	90	0.60
470	3.42	34.16	0.53	27.20	600	3.29	34.22	0.45	27.26	86	0.68
661	3.22	34.25	0.43	27.29	700	3.12	34.28	0.44	27.32	81	0.77
998	2.76	34.37	0.46	27.43	800	2.92	34.33	0.45	27.38	76	0.84
					1000	(2.76)	(34.37)	(0.46)	(27.43)	(72)	(0.99)
11	PIONEER; June 1, 1958; 0012 GCT; 54°30'N, 173°33'E; wind, 270°, 5 kt; weather, cloudy; sea, smooth.										
0	3.20	33.15	-	26.41	0	3.20	33.15		26.41	162	0.00
9	3.76	33.12	7.12	26.34	10	3.73	33.12	7.16	26.34	169	0.02
23	3.45	33.13	7.41	26.38	20	3.51	33.13	7.38	26.37	166	0.03
47	3.12	33.17	7.11	26.44	30	3.35	33.15	7.30	26.40	164	0.05
71	2.82	33.17	7.07	26.46	50	3.08	33.17	7.12	26.44	160	0.08
95	2.61	33.20	6.66	26.51	75	2.80	33.17	6.98	26.47	158	0.12
121	2.15	33.27	6.62	26.60	100	2.44	33.21	6.80	26.53	152	0.16
143	2.58	33.40	5.20	26.67	150	2.75	33.47	4.60	26.71	135	0.23
192	3.41	33.78	2.05	26.90	200	3.41	33.80	1.90	26.91	116	0.30
241	3.42	33.89	1.31	26.98	250	3.43	33.91	1.21	27.00	109	0.35
315	3.58	34.01	0.76	27.06	300	3.53	33.99	0.82	27.05	104	0.41
12	PIONEER; June 1, 1958; 0705, 0554 GCT; 54°00'N, 173°00'E; wind, 320°, 5 kt; weather, sky obscured; sea, smooth.										
0	3.50	33.09	-	26.34	0	3.50	33.09		26.34	169	0.00
10	4.02	33.09	7.22	26.29	10	4.02	33.09	7.22	26.29	174	0.02
25	3.66	33.09	7.25	26.32	20	3.77	33.09	7.25	26.31	172	0.03
50	3.25	33.09	7.12	26.36	30	3.57	33.09	7.20	26.33	170	0.05
75	2.97	33.11	7.19	26.40	50	3.25	33.09	7.12	26.36	167	0.08
99	2.48	33.19	6.69	26.51	75	2.97	33.11	7.19	26.40	164	0.13
124	2.30	33.30	5.90	26.61	100	2.46	33.19	6.65	26.51	154	0.17
149	2.53	33.47	4.98	26.73	150	2.55	33.48	4.89	26.73	133	0.24
198	3.35	33.78	1.83	26.90	200	3.36	33.79	1.83	26.91	117	0.30
248	3.58	33.92	1.60	26.99	250	3.58	33.92	1.56	26.99	109	0.36
297	3.61	34.02	0.69	27.07	300	3.60	34.02	0.69	27.07	102	0.41
					400	3.38	34.10	0.62	27.15	95	0.51
394	3.38	34.10	0.62	27.15	500	3.30	34.16	0.58	27.21	90	0.60
493	3.30	34.16	0.59	27.21	600	3.22	34.23	0.50	27.27	85	0.69
690	3.14	34.28	0.46	27.32	700	3.13	34.29	0.46	27.33	80	0.77
1039	2.68	34.40	0.50	27.46	800	3.02	34.33	0.44	27.37	77	0.85
					1000	2.74	34.39	0.48	27.44	71	1.00

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
PIONEER; June 2, 1958; 0223 GCT; 53°29'N, 172°29'E; wind, 260°, 15 kt; weather, sky obscured; sea, moderate.											13
0	3.90	33.05	-	26.27	0	3.90	33.05		26.27	176	0.00
10	4.18	33.05	7.30	26.24	10	4.18	33.05	7.30	26.24	179	0.02
24	4.12	33.05	7.24	26.25	20	4.15	33.05	7.25	26.24	178	0.04
48	3.78	33.05	7.19	26.28	30	4.03	33.05	7.25	26.26	178	0.05
72	3.52	33.10	6.93	26.35	50	3.78	33.05	7.16	26.28	175	0.09
96	2.72	33.14	7.07	26.45	75	3.40	33.10	6.98	26.36	168	0.13
121	2.30	33.21	6.68	26.54	100	2.57	33.14	7.15	26.46	158	0.17
145	3.12	33.49	4.32	26.69	150	3.24	33.54	3.90	26.72	134	0.25
194	3.85	33.87	1.38	26.93	200	3.81	33.88	1.34	26.94	114	0.31
244	3.58	33.93	1.14	27.00	250	3.55	33.94	1.12	27.01	108	0.36
318	3.35	33.96	0.90	27.05	300	3.39	33.96	0.94	27.04	105	0.42
PIONEER; June 2, 1958; 0917, 0817 GCT; 53°00'N, 172°00'E; wind, 260°, 10 kt; weather, sky obscured; sea, smooth.											14
0	3.60	33.05	-	26.30	0	3.60	33.05		26.30	173	0.00
10	4.52	33.04	6.84	26.20	10	4.52	33.04	6.84	26.20	183	0.02
24	4.33	33.05	7.10	26.23	20	4.39	33.05	7.06	26.22	181	0.04
49	3.79	33.06	6.74	26.29	30	4.19	33.05	7.02	26.24	179	0.05
74	3.34	33.12	6.34	26.38	50	3.76	33.06	6.75	26.29	174	0.09
99	3.44	33.30	4.61	26.51	75	3.34	33.13	6.25	26.39	165	0.13
123	3.70	33.50	3.88	26.65	100	3.45	33.31	4.58	26.52	153	0.17
148	4.00	33.63	3.07	26.72	150	4.01	33.64	3.02	26.73	134	0.24
198	4.10	33.77	1.99	26.82	200	4.10	33.78	1.95	26.83	125	0.31
248	4.08	33.92	1.18	26.94	250	4.07	33.92	1.16	26.94	114	0.37
298	3.88	33.97	0.93	27.00	300	3.88	33.97	0.93	27.00	109	0.42
					400	3.85	34.05	0.67	27.07	104	0.53
394	3.86	34.04	0.69	27.06	500	3.67	34.16	0.47	27.17	94	0.63
494	3.68	34.15	0.47	27.16	600	3.52	34.21	0.46	27.23	90	0.72
594	3.53	34.21	0.46	27.23							
644	3.48	34.22	0.49	27.24							
PIONEER; June 3, 1958; 0005 GCT; 52°30'N, 172°00'E; wind, 030°, 4 kt; weather, cloudy; sea, smooth.											15
0	4.80	32.99	-	26.13	0	4.80	32.99		26.13	189	0.00
10	4.78	32.97	6.91	26.11	10	4.78	32.97	6.91	26.11	191	0.02
24	4.41	33.00	6.92	26.18	20	4.53	32.99	6.91	26.16	187	0.04
48	3.50	33.10	7.02	26.35	30	4.13	33.03	6.97	26.23	180	0.06
72	3.10	33.12	6.89	26.40	50	3.47	33.10	7.01	26.35	169	0.09
97	2.70	33.14	6.76	26.45	75	2.99	33.11	7.00	26.40	164	0.13
121	3.45	33.43	4.40	26.61	100	2.82	33.18	6.44	26.47	157	0.17
145	3.81	33.68	2.68	26.78	150	3.85	33.71	2.49	26.80	127	0.24
195	4.05	33.93	1.20	26.95	200	4.05	33.93	1.14	26.95	113	0.30
244	3.98	33.96	0.78	26.98	250	3.96	33.96	0.75	26.99	110	0.36
319	3.63	34.03	0.63	27.07	300	3.75	34.01	0.62	27.05	105	0.41
PIONEER; June 7, 1958; 2337 GCT; 52°22'N, 173°00'E; wind, 070°, 4 kt; weather, sky obscured; sea, calm.											16
0	5.60	32.97	-	26.02	0	5.60	32.97		26.02	200	0.00
10	5.09	32.96	7.18	26.07	10	5.09	32.96	7.18	26.07	195	0.02
25	5.00	32.95	7.17	26.07	20	5.03	32.95	7.18	26.07	195	0.04
50	4.81	32.97	7.10	26.11	30	4.98	32.95	7.19	26.08	195	0.06
104	3.83	33.34	5.59	26.51	50	4.81	32.97	7.10	26.11	192	0.10
145	3.95	33.57	3.71	26.68	75	4.20	33.15	6.54	26.32	172	0.14
202	4.08	33.79	2.16	26.84	100	3.86	33.32	5.73	26.49	156	0.18
					150	3.96	33.59	3.52	26.69	137	0.26
					200	4.08	33.78	2.20	26.83	124	0.32

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m
17	PIONEER; June 8, 1958; 0655, 0554 GCT; 51°35'N, 173°00'E; wind, 040°, 12 kt; weather, sky obscured; sea, smooth.										
0	4.60	33.08	-	26.22	0	4.60	33.08		26.22	181	0.00
9	4.66	33.06	7.30	26.20	10	4.65	33.06	7.30	26.20	183	0.02
24	4.41	33.06	7.25	26.23	20	4.49	33.06	7.26	26.22	181	0.04
49	3.65	33.08	7.12	26.32	30	4.18	33.06	7.24	26.25	178	0.05
74	3.45	33.11	6.82	26.36	50	3.64	33.08	7.12	26.32	172	0.09
98	3.36	33.27	5.85	26.50	75	3.44	33.12	6.79	26.37	167	0.13
123	3.79	33.40	4.68	26.56	100	3.40	33.28	5.75	26.50	155	0.17
148	4.10	33.49	3.85	26.60	150	4.11	33.50	3.82	26.61	145	0.25
198	4.25	33.63	2.97	26.69	200	4.25	33.64	2.93	26.70	137	0.32
248	4.28	33.77	2.21	26.80	250	4.28	33.77	2.18	26.80	128	0.38
298	4.22	33.86	1.68	26.88	300	4.21	33.86	1.66	26.88	121	0.44
					400	4.01	33.98	0.94	27.00	110	0.56
393	4.02	33.97	0.97	26.99	500	3.89	34.07	0.64	27.08	103	0.67
491	3.90	34.07	0.65	27.08	600	3.76	34.13	0.54	27.14	98	0.77
690	3.64	34.17	0.47	27.18	700	3.63	34.17	0.46	27.19	94	0.86
1040	3.15	34.31	0.46	27.34	800	3.49	34.22	0.43	27.24	90	0.96
					1000	3.21	34.30	0.44	27.33	82	1.13
18	PIONEER; June 11, 1958; 0030 GCT; 51°17'N, 178°35'E; wind, 320°, 10 kt; weather, sky obscured; sea, smooth.										
0	5.20	32.82	-	25.95	0	5.20	32.82		25.95	206	0.00
10	5.48	32.85	6.90	25.94	10	5.48	32.85	6.90	25.94	207	0.02
25	4.98	33.07	6.51	26.17	20	5.13	33.01	6.62	26.11	192	0.04
49	4.56	33.16	6.25	26.29	30	4.87	33.09	6.50	26.20	183	0.06
74	4.35	33.29	5.36	26.41	50	4.55	33.17	6.20	26.30	174	0.10
99	4.26	33.35	5.01	26.47	75	4.35	33.29	5.34	26.41	163	0.14
123	4.10	33.41	4.80	26.53	100	4.25	33.35	5.00	26.47	158	0.18
148	4.09	33.46	4.57	26.58	150	4.09	33.46	4.56	26.58	148	0.25
198	4.10	33.55	3.88	26.65	200	4.10	33.56	3.81	26.65	141	0.33
247	4.15	33.76	2.46	26.81	250	4.15	33.77	2.40	26.82	126	0.39
321	4.04	33.90	1.59	26.93	300	4.09	33.88	1.68	26.91	118	0.45
19	PIONEER; June 11, 1958; 0622, 0436 GCT; 51°00'N, 179°00'E; wind, 320°, 18 kt; weather, partly cloudy; sea, moderate.										
0	5.00	32.72	-	25.89	0	5.00	32.72		25.89	212	0.00
9	5.68	32.72	7.02	25.81	10	5.68	32.72	7.02	25.81	219	0.02
24	5.59	32.72	7.04	25.82	20	5.62	32.72	7.04	25.82	219	0.04
48	5.34	32.73	6.98	25.86	30	5.57	32.71	7.03	25.82	219	0.07
72	4.63	32.83	6.88	26.02	50	5.30	32.73	6.98	25.87	215	0.11
96	3.47	33.10	6.64	26.35	75	4.43	32.87	6.88	26.07	195	0.16
120	3.25	33.22	5.88	26.47	100	3.39	33.11	6.60	26.37	168	0.20
144	3.68	33.52	3.88	26.66	150	3.70	33.57	3.51	26.70	136	0.28
193	3.76	33.83	1.75	26.90	200	3.72	33.84	1.74	26.91	116	0.34
242	3.56	33.92	1.56	26.99	250	3.56	33.93	1.47	27.00	108	0.40
292	3.55	33.99	1.09	27.05	300	3.54	34.00	1.05	27.06	103	0.45
					400	3.54	34.11	0.67	27.15	96	0.55
376	3.50	34.08	0.75	27.13	500	3.56	34.20	0.49	27.22	90	0.65
473	3.60	34.18	0.50	27.20	600	3.42	34.25	0.45	27.27	86	0.73
669	3.32	34.29	0.43	27.31	700	3.26	34.30	0.43	27.32	81	0.82
912	2.91	34.38	0.44	27.42	800	3.09	34.34	0.43	27.37	77	0.90
					1000	(2.78)	(34.41)	(0.45)	(27.46)	(70)	(1.04)

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
PIONEER; June 16, 1958; 2310 GCT; 52°42'N, 178°51'W; wind, 140°, 8 kt; weather, sky obscured; sea, smooth.											20
0	5.50	33.15	-	26.17	0	5.50	33.15		26.17	185	0.00
10	5.72	33.14	4.51	26.14	10	5.72	33.14	4.51	26.14	188	0.02
25	5.15	33.15	5.94	26.22	20	5.30	33.15	5.53	26.20	183	0.04
50	4.95	33.16	6.92	26.25	30	5.15	33.15	6.24	26.22	181	0.06
75	4.22	33.19	6.54	26.35	50	4.95	33.16	6.92	26.25	179	0.09
100	4.07	33.22	6.28	26.39	75	4.22	33.19	6.54	26.35	169	0.14
125	4.02	33.26	6.04	26.42	100	4.07	33.22	6.28	26.39	166	0.18
150	3.82	33.28	6.18	26.46	150	3.82	33.28	6.18	26.46	159	0.26
200	3.61	33.33	5.36	26.52	200	3.61	33.33	5.36	26.52	154	0.34
250	3.68	33.42	4.91	26.58	250	3.68	33.42	4.91	26.58	148	0.41
325	3.89	33.66	3.20	26.75	300	3.81	33.57	3.91	26.69	138	0.48
PIONEER; June 17, 1958; 0718, 0616 GCT; 53°00'N, 180°00'; wind, calm; weather, fog; sea, calm.											21
0	5.10	33.16	-	26.23	0	5.10	33.16		26.23	180	0.00
10	4.95	33.15	7.60	26.24	10	4.95	33.15	7.60	26.24	179	0.02
25	4.62	33.15	7.44	26.27	20	4.76	33.15	7.48	26.26	177	0.04
50	3.38	33.17	7.29	26.41	30	4.29	33.15	7.41	26.31	172	0.05
75	3.16	33.21	7.08	26.47	50	3.38	33.17	7.29	26.41	163	0.09
100	3.00	33.26	7.03	26.52	75	3.16	33.21	7.08	26.47	158	0.13
116	3.37	33.28	7.02	26.50	100	3.00	33.26	7.03	26.52	153	0.17
174	3.78	33.47	5.56	26.61	150	3.65	33.38	6.08	26.56	150	0.24
246	3.86	33.83	4.65	26.89	200	3.86	33.64	5.58	26.74	133	0.31
300	3.65	33.87	2.00	26.95	250	3.84	33.83	4.38	26.89	119	0.38
					300	3.65	33.87	2.00	26.95	114	0.43
392	3.61	34.02	2.12	27.07	400	3.61	34.03	2.00	27.08	102	0.54
489	3.57	34.10	1.03	27.14	500	3.56	34.11	1.00	27.14	97	0.64
684	3.33	34.21	0.65	27.25	600	3.45	34.16	0.78	27.20	93	0.74
914	2.90	34.34	0.55	27.39	700	3.30	34.22	0.64	27.26	87	0.83
					800	3.11	34.27	0.57	27.31	82	0.91
					1000	(2.75)	(34.39)	(0.57)	(27.44)	(71)	(1.06)
PIONEER; June 17, 1958; 2340 GCT; 53°32'N, 180°00'; wind, calm; weather, distant fog higher than observer; sea, calm.											22
0	5.90	33.18	-	26.15	0	5.90	33.18		26.15	187	0.00
10	5.30	33.17	7.30	26.21	10	5.30	33.17	7.30	26.21	181	0.02
25	4.60	33.16	7.30	26.28	20	4.83	33.16	7.30	26.26	177	0.04
50	3.44	33.21	7.20	26.44	30	4.30	33.17	7.28	26.32	171	0.05
74	3.10	33.23	7.09	26.49	50	3.44	33.21	7.20	26.44	160	0.09
99	2.82	33.29	6.66	26.56	75	3.09	33.23	7.07	26.49	156	0.12
124	2.68	33.31	6.29	26.59	100	2.80	33.29	6.66	26.56	149	0.16
149	3.05	33.44	5.04	26.66	150	3.07	33.45	4.96	26.67	139	0.24
198	3.78	33.76	2.45	26.85	200	3.78	33.76	2.43	26.85	123	0.30
248	3.80	33.86	1.94	26.92	250	3.80	33.86	1.92	26.92	116	0.36
322	3.70	33.98	1.08	27.03	300	3.75	33.95	1.34	27.00	109	0.42
PIONEER; June 18, 1958; 0448 GCT; 54°00'N, 180°00'; wind, calm; weather, sky obscured; sea, calm.											23
0	6.10	33.22	-	26.16	0	6.10	33.22		26.16	187	0.00
10	4.98	33.21	7.31	26.28	10	4.98	33.21	7.31	26.28	175	0.02
24	4.42	33.22	7.43	26.35	20	4.55	33.22	7.40	26.34	170	0.04
49	4.04	33.22	7.31	26.39	30	4.36	33.22	7.43	26.36	168	0.05
74	3.29	33.24	6.92	26.48	50	4.00	33.22	7.31	26.39	164	0.08
98	3.03	33.30	5.95	26.55	75	3.28	33.24	6.87	26.48	156	0.12
123	2.96	33.34	6.04	26.59	100	3.01	33.30	6.01	26.55	150	0.16
147	3.28	33.48	4.63	26.67	150	3.34	33.50	4.47	26.68	138	0.24
172	3.65	33.63	3.42	26.75	200	3.79	33.77	2.40	26.85	122	0.30
196	3.78	33.75	2.52	26.84							
246	3.70	33.93	1.38	26.99							

SBL

MV PIONEER

	OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
	Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
	m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
24	PIONEER; June 19, 1958; 0103 GCT; 54°25'N, 179°00'E; wind, 040°, 15 kt; weather, partly cloudy; sea, moderate.											
	0	5.80	33.22	-	26.19	0	5.80	33.22		26.19	183	0.00
	9	5.35	33.20	7.37	26.23	10	5.27	33.20	7.38	26.24	179	0.02
	23	4.65	33.21	7.44	26.32	20	4.72	33.21	7.43	26.31	172	0.04
	47	4.52	33.21	7.35	26.33	30	4.60	33.21	7.45	26.32	171	0.05
	70	3.27	33.21	6.92	26.46	50	4.30	33.21	7.27	26.36	168	0.09
	94	2.98	33.25	6.88	26.51	75	3.19	33.21	6.98	26.46	158	0.13
	118	2.95	33.33	6.07	26.58	100	2.95	33.26	6.71	26.52	152	0.17
	141	3.16	33.46	4.97	26.67	150	3.32	33.52	4.41	26.70	136	0.24
	188	3.77	33.73	2.63	26.82	200	3.77	33.77	2.35	26.85	122	0.30
	235	3.76	33.87	1.71	26.93	250	3.75	33.90	1.51	26.96	112	0.36
	306	3.68	33.96	1.14	27.01	300	3.69	33.96	1.15	27.01	108	0.42
25	PIONEER; June 19, 1958; 0734, 0633 GCT; 54°43'N, 178°14'E; wind, 010°, 10 kt; weather, cloudy; sea, moderate.											
	0	4.90	33.25	-	26.32	0	4.90	33.25		26.32	171	0.00
	10	4.70	33.25	7.57	26.34	10	4.70	33.25	7.57	26.34	169	0.02
	25	4.20	33.24	7.30	26.39	20	4.37	33.24	7.38	26.37	166	0.03
	50	3.25	33.24	7.19	26.48	30	3.95	33.24	7.28	26.42	162	0.05
	75	2.99	33.26	7.12	26.52	50	3.25	33.24	7.19	26.48	156	0.08
	100	2.96	33.29	-	26.55	75	2.99	33.26	7.12	26.52	152	0.12
	125	3.02	33.39	5.31	26.62	100	2.96	33.29		26.55	150	0.16
	150	3.42	33.64	3.49	26.78	150	3.42	33.64	3.49	26.78	128	0.23
	200	3.62	33.79	2.27	26.88	200	3.62	33.79	2.27	26.88	119	0.29
	250	3.69	33.89	1.39	26.96	250	3.69	33.89	1.39	26.96	113	0.35
	300	3.69	33.97	0.97	27.02	300	3.69	33.97	0.97	27.02	107	0.40
						400	3.51	34.07	0.91	27.12	98	0.51
	390	3.52	34.06	0.93	27.11	500	3.44	34.14	0.71	27.18	93	0.60
	490	3.45	34.13	0.72	27.17	600	3.30	34.20	0.58	27.24	88	0.69
	690	3.18	34.25	0.52	27.29	700	3.17	34.26	0.50	27.30	83	0.78
	1039	2.72	34.38	0.55	27.44	800	3.03	34.30	0.47	27.35	79	0.86
						1000	2.77	34.37	0.52	27.43	72	1.01
26	PIONEER; June 23, 1958; 0525 GCT; 54°02'N, 177°15'E; wind, 240°, 12 kt; weather, fog in patches; sea, rough.											
	0	4.50	33.12	-	26.26	0	4.50	33.12		26.26	177	0.00
	10	4.98	33.12	7.25	26.21	10	4.98	33.12	7.25	26.21	182	0.02
	25	4.89	33.13	7.27	26.23	20	4.99	33.13	7.27	26.22	181	0.04
	49	3.37	33.13	7.20	26.38	30	4.47	33.13	7.26	26.27	176	0.05
	74	3.06	33.17	7.12	26.44	50	3.36	33.13	7.20	26.38	165	0.09
	98	2.88	33.24	6.74	26.51	75	3.05	33.17	7.12	26.44	160	0.13
	123	2.94	33.35	5.75	26.60	100	2.87	33.25	6.66	26.52	152	0.17
	147	3.34	33.44	4.76	26.63	150	3.47	33.46	4.52	26.64	142	0.24
	197	4.10	33.77	2.44	26.82	200	(4.05)	(33.79)	(2.41)	(26.84)	(123)	(0.31)
27	PIONEER; June 23, 1958; 2055 GCT; 53°02'N, 175°00'E; wind, 220°, 16 kt; weather, sky obscured; sea, rough.											
	0	4.60	33.13	-	26.26	0	4.60	33.13		26.26	177	0.00
	10	5.35	33.10	7.03	26.15	10	5.35	33.10	7.03	26.15	187	0.02
	25	5.21	33.10	7.02	26.17	20	5.28	33.10	7.02	26.16	186	0.04
	49	4.50	33.11	7.00	26.26	30	5.03	33.10	7.06	26.19	184	0.06
	74	4.13	33.20	6.46	26.37	50	4.49	33.11	6.97	26.26	178	0.09
	98	3.54	33.22	6.43	26.44	75	4.10	33.20	6.47	26.37	167	0.14
	123	3.32	33.28	5.98	26.51	100	3.50	33.22	6.41	26.44	160	0.18
	147	3.68	33.38	5.22	26.55	150	3.69	33.39	5.11	26.56	150	0.25
	196	3.88	33.57	3.63	26.68	200	3.90	33.58	3.54	26.69	138	0.32
	246	4.00	33.71	2.59	26.78	250	4.00	33.72	2.51	26.79	128	0.39
	320	3.90	33.90	1.46	26.94	300	3.96	33.85	1.71	26.90	119	0.45

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
PIONEER; June 28, 1958; 0750 GCT; 51°30'N, 173°57'E; wind, 220°, 28 kt; weather, sky obscured; sea, rough.											28
0	6.20	33.01	-	25.98	0	6.20	33.01		25.98	204	0.00
9	6.82	33.02	6.88	25.91	10	6.82	33.02	6.89	25.91	211	0.02
23	6.80	33.02	6.98	25.91	20	6.80	33.02	6.96	25.91	210	0.04
45	4.75	33.03	7.15	26.17	30	6.65	33.02	7.06	25.93	209	0.06
68	4.02	33.09	7.10	26.29	50	4.54	33.04	7.17	26.20	183	0.10
91	3.90	33.13	6.70	26.33	75	3.99	33.09	7.03	26.29	174	0.15
114	3.69	33.27	5.75	26.46	100	3.79	33.19	6.29	26.39	165	0.19
136	3.70	33.37	5.12	26.54	150	3.77	33.43	4.59	26.58	147	0.27
182	3.90	33.57	3.54	26.68	200	3.95	33.65	3.02	26.74	133	0.34
226	4.01	33.74	2.39	26.81	250	4.03	33.78	2.03	26.84	124	0.40
297	4.05	33.90	1.32	26.93	300	(4.05)	(33.91)	(1.28)	(26.94)	(115)	(0.46)
PIONEER; June 28, 1958; 2206 GCT; 51°15'N, 176°25'E; wind, 220°, 16 kt; weather, sky obscured; sea, moderate.											29
0	6.10	32.83	-	25.85	0	6.10	32.83		25.85	216	0.00
9	6.52	32.81	6.87	25.78	10	6.54	32.81	6.88	25.78	223	0.02
23	6.46	32.80	6.97	25.78	20	6.54	32.80	6.94	25.77	224	0.04
46	4.72	32.89	7.09	26.06	30	5.87	32.82	7.03	25.87	214	0.07
69	3.55	33.06	6.93	26.31	50	4.46	32.92	7.09	26.11	192	0.11
93	3.13	33.21	6.43	26.47	75	3.39	33.10	6.87	26.36	168	0.15
117	3.25	33.35	5.32	26.57	100	3.14	33.24	6.22	26.49	155	0.19
141	3.60	33.61	3.15	26.74	150	3.56	33.66	2.89	26.79	128	0.26
190	3.48	33.84	1.95	26.94	200	3.50	33.86	1.77	26.95	113	0.32
238	3.55	33.93	1.23	27.00	250	3.56	33.95	1.11	27.02	107	0.38
311	3.54	34.03	0.90	27.08	300	3.55	34.02	0.88	27.07	102	0.43
PIONEER; June 29, 1958; 0833 GCT; 51°13'N, 178°23'E; wind, 220°, 10 kt; weather, sky obscured; sea, moderate.											30
0	5.90	32.90	-	25.93	0	5.90	32.90		25.93	208	0.00
10	6.49	32.89	6.29	25.85	10	6.49	32.89	6.29	25.85	216	0.02
25	5.06	33.11	5.38	26.19	20	5.42	33.05	5.62	26.11	192	0.04
49	4.92	33.12	4.93	26.22	30	5.03	33.11	5.20	26.20	183	0.06
73	4.84	33.13	5.49	26.23	50	4.92	33.12	4.96	26.22	181	0.10
98	4.78	33.22	5.40	26.31	75	4.84	33.14	5.49	26.24	179	0.14
123	4.60	33.27	5.26	26.37	100	4.77	33.22	5.41	26.31	173	0.18
147	4.42	33.32	4.58	26.43	150	4.41	33.32	4.54	26.43	162	0.27
196	4.28	33.40	4.00	26.51	200	4.27	33.41	3.99	26.52	154	0.35
246	4.22	33.56	3.53	26.64	250	4.22	33.58	3.46	26.66	141	0.42
320	4.45	33.90	1.46	26.89	300	4.35	33.80	2.17	26.82	127	0.49
PIONEER; June 29, 1958; 2341, 2230 GCT; 50°00'N, 180°00'; wind, 270°, 14 kt; weather, overcast; sea, moderate.											31
0	5.90	32.81	-	25.86	0	5.90	32.81		25.86	215	0.00
10	6.32	32.80	6.94	25.80	10	6.32	32.80	6.94	25.80	221	0.02
24	6.31	32.80	6.91	25.80	20	6.31	32.80	6.91	25.80	221	0.04
48	4.62	32.94	7.12	26.11	30	6.30	32.84	6.98	25.83	218	0.07
73	4.05	32.98	7.20	26.20	50	4.58	32.94	7.13	26.11	191	0.11
97	3.43	33.01	7.19	26.28	75	3.98	32.97	7.28	26.20	183	0.15
121	3.32	33.37	5.10	26.58	100	3.41	33.06	6.93	26.32	171	0.20
145	3.30	33.68	2.91	26.83	150	3.27	33.69	2.83	26.84	123	0.27
193	3.21	33.82	2.06	26.95	200	3.30	33.85	1.84	26.96	112	0.33
241	3.60	33.98	0.95	27.04	250	3.56	33.99	0.94	27.05	104	0.38
290	3.43	34.05	0.87	27.11	300	3.44	34.06	0.83	27.12	98	0.44
					400	3.39	34.16	0.64	27.20	91	0.53
374	3.45	34.14	0.64	27.18	500	3.27	34.23	0.57	27.27	85	0.62
466	3.27	34.21	0.63	27.25	600	3.24	34.29	0.45	27.32	81	0.70
655	3.20	34.32	0.40	27.35	700	3.16	34.34	0.38	27.37	77	0.78
1000	2.67	34.43	0.53	27.48	800	3.04	34.38	0.37	27.41	73	0.85
					1000	2.67	34.43	0.53	27.48	67	0.99

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m
32	PIONEER; July 1, 1958; 0236 GCT; 50°19'N, 179°08'W; wind, 270°, 2 kt; weather, sky obscured; sea, smooth.										
0	6.70	32.75	-	25.71	0	6.70	32.75		25.71	229	0.00
10	6.72	32.75	6.93	25.71	10	6.72	32.75	6.93	25.71	230	0.02
25	6.58	32.75	7.03	25.73	20	6.68	32.75	7.02	25.71	229	0.05
50	5.27	32.88	6.84	25.99	30	6.31	32.76	7.03	25.77	224	0.07
75	4.06	33.21	6.20	26.38	50	5.27	32.88	6.84	25.99	203	0.11
100	4.35	33.41	4.48	26.51	75	4.06	33.21	6.20	26.38	166	0.16
124	4.15	33.58	3.53	26.66	100	4.35	33.41	4.48	26.51	154	0.20
149	3.78	33.69	2.91	26.79	150	3.78	33.70	2.87	26.80	127	0.27
198	3.80	33.91	1.21	26.96	200	3.81	33.92	1.18	26.97	111	0.33
248	3.90	34.02	0.56	27.04	250	3.90	34.02	0.54	27.04	105	0.38
322	3.80	34.07	0.40	27.09	300	3.86	34.07	0.35	27.08	101	0.43
33	PIONEER; July 1, 1958; 0728 GCT; 50°38'N, 178°28'W; wind, 270°, 2 kt; weather, sky obscured; sea, smooth.										
0	6.30	32.71	-	25.73	0	6.30	32.71		25.73	227	0.00
10	6.65	32.71	7.02	25.69	10	6.65	32.71	7.02	25.69	232	0.02
25	6.57	32.71	6.99	25.70	20	6.60	32.71	6.99	25.69	231	0.05
50	4.25	33.04	6.10	26.23	30	6.48	32.74	6.94	25.73	228	0.07
75	3.42	33.19	6.48	26.43	50	4.25	33.04	6.10	26.23	180	0.11
99	3.55	33.36	4.97	26.55	75	3.42	33.19	6.48	26.43	162	0.15
124	3.86	33.58	3.44	26.69	100	3.57	33.37	4.91	26.56	150	0.19
149	3.87	33.75	2.36	26.83	150	3.87	33.75	2.34	26.83	124	0.26
198	3.74	33.88	1.43	26.94	200	3.74	33.88	1.40	26.94	114	0.32
248	3.80	33.98	0.81	27.02	250	3.80	33.98	0.78	27.02	107	0.37
322	3.72	34.07	0.53	27.10	300	3.76	34.05	0.53	27.08	102	0.43
34	PIONEER; July 1, 1958; 2016 GCT; 51°32'N, 176°39'W; wind, 220°, 6 kt; weather, light fog; sea, calm.										
0	6.40	32.78	-	25.77	0	6.40	32.78		25.77	223	0.00
10	6.86	32.78	6.91	25.71	10	6.86	32.78	6.91	25.71	229	0.02
25	6.72	32.81	6.85	25.75	20	6.84	32.79	6.92	25.72	228	0.05
50	5.00	33.03	5.78	26.14	30	6.25	32.87	6.56	25.86	215	0.07
75	4.90	33.05	5.71	26.16	50	5.00	33.03	5.78	26.14	189	0.11
100	4.64	33.14	5.71	26.26	75	4.90	33.05	5.71	26.16	187	0.16
125	4.51	33.19	5.50	26.32	100	4.64	33.14	5.71	26.26	177	0.20
150	4.42	33.22	5.21	26.35	150	4.42	33.22	5.21	26.35	170	0.29
199	4.46	33.31	5.06	26.42	200	4.46	33.31	5.06	26.42	164	0.37
248	4.33	33.36	4.86	26.47	250	4.33	33.37	4.82	26.48	158	0.45
298	4.30	33.46	4.30	26.55	300	(4.30)	(33.46)	(4.30)	(26.55)	(152)	(0.53)
35	PIONEER; July 6, 1958; 0850, 0740 GCT; 51°17'N, 175°53'W; wind, 270°, 16 kt; weather, sky obscured; sea, moderate.										
0	6.90	32.65	-	25.61	0	6.90	32.65		25.61	239	0.00
10	7.40	32.66	6.73	25.55	10	7.40	32.66	6.73	25.55	245	0.02
24	6.32	32.95	6.68	25.92	20	6.61	32.88	6.74	25.82	218	0.05
49	4.87	33.25	5.20	26.33	30	5.86	33.04	6.19	26.04	198	0.07
74	4.62	33.38	5.08	26.46	50	4.86	33.26	5.20	26.34	170	0.10
98	4.45	33.45	4.51	26.53	75	4.61	33.38	5.06	26.46	159	0.15
123	4.52	33.55	3.60	26.60	100	4.46	33.46	4.42	26.54	152	0.18
147	4.47	33.60	3.24	26.65	150	4.47	33.62	3.12	26.66	140	0.26
197	4.35	33.83	1.70	26.84	200	4.33	33.84	1.65	26.85	122	0.32
246	4.08	33.94	0.97	26.96	250	4.07	33.95	0.94	26.97	112	0.38
296	3.96	34.02	0.62	27.03	300	3.95	34.02	0.62	27.03	106	0.44
					400	3.75	34.12	0.49	27.13	97	0.54
388	3.77	34.11	0.50	27.12	500	3.54	34.20	0.40	27.22	90	0.63
487	3.57	34.19	0.40	27.21	600	3.31	34.26	0.43	27.29	84	0.72
683	3.14	34.31	0.45	27.34	700	3.11	34.32	0.45	27.35	78	0.80
1031	2.70	34.42	0.56	27.47	800	2.95	34.36	0.48	27.40	74	0.88
					1000	2.72	34.42	0.55	27.47	68	1.02

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m

36

PIONEER; July 7, 1958; 0052, 0120 GCT; 50°49'N, 175°27'W; wind, 290°, 18 kt; weather, sky obscured; sea, slight.

0	6.40	32.83	-	25.81	0	6.40	32.83		25.81	219	0.00
9	6.73	32.84	6.72	25.78	10	6.63	32.86	6.74	25.81	220	0.02
23	5.58	33.09	6.75	26.12	20	5.77	33.05	6.80	26.06	196	0.04
47	5.04	33.18	5.36	26.25	30	5.40	33.11	6.26	26.16	187	0.06
70	4.72	33.32	4.78	26.40	50	4.98	33.20	5.30	26.27	176	0.10
85	4.68	33.39	4.37	26.46	75	4.71	33.34	4.67	26.42	163	0.14
116	4.46	33.67	2.74	26.70	100	4.56	33.54	3.47	26.59	146	0.18
163	4.39	33.81	1.93	26.82	150	4.42	33.78	2.15	26.79	128	0.25
					200	4.21	33.89	1.19	26.90	118	0.31
235	4.05	33.95	0.76	26.97	250	3.98	33.97	0.66	26.99	110	0.37
307	3.75	34.03	0.74	27.06	300	3.78	34.02	0.69	27.05	104	0.42

37

PIONEER; July 7, 1958; 0729, 0623 GCT; 50°30'N, 175°00'W; wind, 270°, 16 kt; weather, slight drizzle; sea, slight.

0	7.10	32.71	-	25.63	0	7.10	32.71		25.63	237	0.00
10	7.68	32.71	6.61	25.55	10	7.68	32.71	6.61	25.55	245	0.02
25	6.84	32.81	6.91	25.74	20	7.14	32.78	6.84	25.68	233	0.05
49	5.14	32.98	6.79	26.08	30	6.45	32.85	6.94	25.82	219	0.07
73	3.88	33.12	5.98	26.33	50	5.06	32.99	6.75	26.10	193	0.11
97	3.85	33.29	5.16	26.46	75	3.88	33.13	5.92	26.33	170	0.16
121	3.88	33.49	4.03	26.62	100	3.87	33.32	5.00	26.49	156	0.20
145	3.55	33.65	3.38	26.78	150	3.51	33.67	3.28	26.80	127	0.27
196	3.27	33.80	2.46	26.93	200	3.28	33.81	2.39	26.93	114	0.33
243	3.36	33.90	1.74	27.00	250	3.37	33.91	1.68	27.00	108	0.38
292	3.41	33.96	1.37	27.04	300	3.41	33.97	1.32	27.05	104	0.44
					400	3.39	34.08	0.93	27.14	97	0.54
390	3.40	34.07	0.95	27.13	500	3.32	34.16	0.77	27.21	91	0.63
488	3.33	34.15	0.78	27.20	600	3.20	34.24	0.72	27.28	84	0.72
684	3.10	34.29	0.68	27.33	700	3.08	34.30	0.68	27.34	79	0.80
1028	2.60	34.41	0.68	27.47	800	2.95	34.35	0.66	27.39	75	0.88
					1000	2.65	34.41	0.67	27.47	68	1.02

38

PIONEER; July 8, 1958; 0017 GCT; 50°00'N, 175°00'W; wind, 300°, 4 kt; weather, overcast; sea, smooth.

0	7.50	32.74	-	25.59	0	7.50	32.74		25.59	240	0.00
10	7.32	32.74	6.79	25.62	10	7.32	32.74	6.79	25.62	238	0.02
24	7.20	32.74	6.78	25.64	20	7.29	32.73	6.76	25.62	238	0.05
48	5.75	32.89	7.00	25.94	30	6.86	32.78	6.84	25.71	229	0.07
73	3.98	33.04	7.11	26.25	50	5.57	32.90	7.02	25.97	205	0.11
97	3.25	33.15	6.90	26.41	75	3.90	33.05	7.10	26.27	176	0.16
121	3.10	33.21	6.65	26.47	100	3.22	33.15	6.93	26.41	163	0.20
145	3.23	33.39	5.25	26.60	150	3.23	33.44	4.93	26.64	141	0.28
194	3.25	33.78	2.81	26.91	200	3.26	33.79	2.71	26.92	116	0.34
242	3.32	33.86	2.09	26.97	250	3.33	33.87	1.99	26.98	111	0.40
316	3.39	33.98	1.41	27.06	300	3.38	33.95	1.51	27.03	106	0.46

SBL

MV PIONEER

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m
39	PIONEER; July 8, 1958; 0741, 0633 GCT; 49°30'N, 175°00'W; wind, 300°, 14 kt; weather, sky obscured; sea, smooth.										
0	6.60	32.83	-	25.79	0	6.60	32.83		25.79	222	0.00
10	7.15	32.81	6.79	25.70	10	7.15	32.81	6.79	25.70	230	0.02
25	6.92	32.83	6.78	25.74	20	7.05	32.82	6.75	25.72	229	0.05
50	5.42	32.89	7.17	25.98	30	6.64	32.84	6.89	25.79	222	0.07
74	3.75	33.00	7.10	26.24	50	5.42	32.89	7.17	25.98	204	0.11
99	3.22	33.11	6.68	26.38	75	3.72	33.00	7.10	26.25	179	0.16
124	3.30	33.32	5.42	26.54	100	3.22	33.12	6.64	26.39	165	0.20
148	3.50	33.62	3.55	26.76	150	3.50	33.63	3.47	26.77	130	0.28
198	3.55	33.85	1.95	26.94	200	3.56	33.85	1.90	26.94	114	0.34
247	3.78	33.95	1.13	27.00	250	3.78	33.96	1.11	27.00	108	0.39
296	3.73	34.03	0.81	27.06	300	3.73	34.04	0.80	27.07	102	0.45
					400	3.62	34.14	0.57	27.16	94	0.54
395	3.63	34.14	0.57	27.16	500	3.46	34.21	0.50	27.23	88	0.64
494	3.46	34.21	0.50	27.23	600	3.39	34.24	0.49	27.26	86	0.72
792	3.15	34.31	0.52	27.34	700	3.29	34.27	0.49	27.30	84	0.81
1037	2.61	34.44	0.63	27.49	800	3.14	34.31	0.52	27.34	80	0.89
					1000	2.71	34.42	0.60	27.47	68	1.04
40	PIONEER; July 9, 1958; 0109 GCT; 49°00'N, 175°00'W; wind, 220°, 22 kt; weather, sky obscured; sea, slight.										
0	6.60	32.77	-	25.74	0	6.60	32.77		25.74	226	0.00
9	7.28	32.76	6.71	25.64	10	7.30	32.76	6.71	25.64	236	0.02
23	7.22	32.77	6.78	25.66	20	7.29	32.76	6.75	25.64	236	0.05
47	5.63	32.89	7.11	25.95	30	6.78	32.80	6.91	25.74	227	0.07
71	3.78	33.03	7.15	26.27	50	5.32	32.91	7.12	26.01	202	0.11
95	3.44	33.14	7.04	26.38	75	3.71	33.05	7.17	26.29	175	0.16
119	3.24	33.25	6.45	26.49	100	3.37	33.14	7.09	26.39	165	0.20
143	3.36	33.65	3.79	26.80	150	3.31	33.68	3.58	26.83	124	0.27
191	3.20	33.82	2.55	26.95	200	3.26	33.84	2.34	26.96	112	0.33
239	3.45	33.93	1.61	27.01	250	3.48	33.95	1.46	27.03	106	0.39
312	3.51	34.05	0.99	27.10	300	3.53	34.03	1.02	27.08	101	0.44
41	PIONEER; July 9, 1958; 0733 GCT; 49°20'N, 175°41'W; wind, 270°, 15 kt; weather, sky obscured; sea, slight.										
0	6.50	32.88	-	25.84	0	6.50	32.88		25.84	217	0.00
9	7.10	32.88	6.83	25.76	10	7.10	32.88	6.82	25.76	225	0.02
23	7.10	32.88	6.76	25.76	20	7.10	32.88	6.76	25.76	225	0.04
46	5.56	32.94	7.09	26.00	30	7.00	32.89	6.89	25.78	223	0.07
69	3.99	33.05	7.17	26.26	50	5.22	32.96	7.11	26.06	197	0.11
93	3.34	33.10	7.04	26.36	75	3.78	33.06	7.16	26.29	175	0.15
116	3.15	33.16	6.69	26.43	100	3.24	33.10	7.01	26.37	167	0.20
139	3.33	33.42	5.60	26.62	150	3.34	33.53	4.72	26.70	136	0.27
186	3.40	33.78	2.60	26.90	200	3.44	33.81	2.28	26.92	116	0.34
233	3.50	33.88	1.69	26.97	250	3.52	33.91	1.47	26.99	110	0.39
303	3.52	34.00	1.12	27.06	300	3.52	34.00	1.12	27.06	103	0.44
42	PIONEER; July 9, 1958; 1742 GCT; 49°49'N, 176°47'W; wind, 270°, 12 kt; weather, sky obscured; sea, smooth.										
0	6.30	32.85	-	25.84	0	6.30	32.85		25.84	217	0.00
10	6.93	32.84	6.84	25.75	10	6.93	32.84	6.84	25.75	225	0.02
25	6.93	32.84	6.82	25.75	20	6.93	32.84	6.82	25.75	226	0.04
50	5.33	32.97	7.00	26.05	30	6.85	32.87	6.87	25.78	222	0.07
75	3.80	33.08	7.09	26.30	50	5.33	32.97	7.00	26.05	197	0.11
99	3.20	33.17	6.93	26.43	75	3.80	33.08	7.09	26.30	173	0.16
124	3.15	33.30	6.19	26.54	100	3.19	33.17	6.93	26.43	161	0.20
149	3.29	33.64	3.95	26.80	150	3.29	33.64	3.92	26.80	127	0.27
198	3.20	33.79	2.65	26.92	200	3.21	33.79	2.63	26.92	115	0.33
248	3.32	33.88	2.14	26.98	250	3.32	33.88	2.13	26.98	110	0.39
322	3.39	33.97	1.93	27.05	300	3.38	33.95	1.93	27.03	106	0.44

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
PIONEER; July 9, 1958; 2244 GCT; 50°07'N, 177°15'W; wind, 220°, 6 kt; weather, overcast; sea, smooth.											43
0	6.70	32.83	-	25.77	0	6.70	32.83		25.77	223	0.00
10	7.18	32.82	6.89	25.70	10	7.18	32.82	6.89	25.70	230	0.02
24	7.14	32.83	6.87	25.71	20	7.15	32.82	6.85	25.71	230	0.05
48	4.99	33.08	7.17	26.18	30	6.80	32.91	6.99	25.82	219	0.07
72	3.92	33.13	6.99	26.33	50	4.88	33.08	7.15	26.19	184	0.11
97	3.35	33.16	7.11	26.41	75	3.83	33.12	7.11	26.33	171	0.15
121	3.15	33.45	5.30	26.66	100	3.31	33.20	6.88	26.44	160	0.19
146	3.25	33.72	3.52	26.86	150	3.24	33.73	3.43	26.87	120	0.26
195	3.21	33.83	2.52	26.96	200	3.22	33.84	2.44	26.96	112	0.32
244	3.32	33.92	1.88	27.02	250	3.33	33.93	1.81	27.02	106	0.38
318	3.40	34.00	1.36	27.07	300	3.39	33.99	1.43	27.07	103	0.43
PIONEER; July 10, 1958; 0604, 0507 GCT; 50°22'N, 177°45'W; wind, 120°, 14 kt; weather, overcast; sea, smooth.											44
0	6.80	32.80	-	25.74	0	6.80	32.80		25.74	227	0.00
10	7.12	32.80	6.94	25.69	10	7.12	32.80	6.94	25.69	231	0.02
25	7.02	32.80	6.98	25.71	20	7.10	32.80	6.97	25.70	231	0.05
50	4.43	32.95	6.93	26.14	30	6.50	32.83	6.99	25.80	221	0.07
75	3.45	33.12	6.57	26.37	50	4.43	32.95	6.93	26.14	189	0.11
100	3.56	33.49	4.40	26.65	75	3.45	33.12	6.57	26.37	167	0.16
125	3.62	33.72	3.05	26.83	100	3.56	33.49	4.40	26.65	140	0.19
150	4.00	33.85	1.58	26.89	150	4.00	33.85	1.58	26.89	118	0.26
200	3.92	33.97	0.91	27.00	200	3.92	33.97	0.91	27.00	109	0.32
249	3.85	34.02	0.68	27.04	250	3.85	34.02	0.68	27.04	104	0.37
299	3.80	34.09	0.52	27.11	300	3.80	34.09	0.52	27.11	99	0.42
					400	3.63	34.16	0.41	27.18	93	0.52
394	3.64	34.16	0.41	27.18	500	3.46	34.23	0.44	27.25	87	0.60
493	3.47	34.23	0.44	27.25	600	3.30	34.29	0.47	27.31	81	0.69
691	3.15	34.33	0.50	27.36	700	3.14	34.33	0.50	27.36	77	0.77
1036	2.58	34.45	0.63	27.51	800	2.97	34.38	0.54	27.42	73	0.84
					1000	2.64	34.44	0.62	27.49	66	0.98
PIONEER; July 12, 1958; 0724, 0624 GCT; 50°59'N, 178°50'E; wind, 350°, 8 kt; weather, partly cloudy; sea, smooth.											45
0	6.70	32.75	-	25.71	0	6.70	32.75		25.71	229	0.00
10	7.32	32.73	6.79	25.61	10	7.32	32.73	6.79	25.61	239	0.02
25	7.20	32.73	6.78	25.63	20	7.29	32.73	6.78	25.62	238	0.05
49	6.04	32.74	6.82	25.79	30	7.00	32.73	6.82	25.65	235	0.07
74	4.28	32.95	6.43	26.15	50	5.95	32.75	6.81	25.81	221	0.12
98	3.70	33.21	5.62	26.42	75	4.24	32.96	6.42	26.16	187	0.17
123	3.90	33.49	3.62	26.62	100	3.72	33.23	5.44	26.43	162	0.21
147	3.95	33.76	2.14	26.83	150	3.96	33.77	2.06	26.83	124	0.28
197	4.04	33.94	1.13	26.96	200	4.04	33.95	1.11	26.97	111	0.34
246	4.00	34.00	0.86	27.01	250	3.97	34.00	0.86	27.02	107	0.40
296	3.74	34.01	0.85	27.05	300	3.74	34.02	0.83	27.06	104	0.45
					400	3.67	34.13	0.47	27.15	96	0.55
394	3.68	34.13	0.47	27.15	500	3.51	34.18	0.43	27.21	91	0.64
492	3.52	34.18	0.43	27.20	600	3.34	34.24	0.45	27.27	86	0.73
689	3.19	34.28	0.47	27.32	700	3.17	34.28	0.47	27.32	81	0.81
1033	2.66	34.41	0.50	27.47	800	3.01	34.33	0.49	27.37	77	0.89
					1000	2.71	34.40	0.50	27.45	70	1.04

	OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m
46	PIONEER; July 13, 1958; 0110 GCT; 50°34'N, 178°00'E; wind, 240°, 16 kt; weather, sky obscured; sea, moderate.											
	0	6.70	32.73	-	25.69	0	6.70	32.73		25.69	231	0.00
	10	7.29	32.72	6.79	25.61	10	7.29	32.72	6.79	25.61	239	0.02
	24	7.20	32.72	6.78	25.62	20	7.29	32.72	6.78	25.61	239	0.05
	48	5.03	32.85	6.68	25.99	30	6.57	32.74	6.78	25.72	229	0.07
	72	3.80	33.12	6.10	26.33	50	4.89	32.88	6.62	26.03	199	0.11
	96	3.47	33.27	5.63	26.49	75	3.73	33.13	6.10	26.35	169	0.16
	120	3.63	33.49	4.01	26.65	100	3.48	33.31	5.35	26.52	153	0.20
	144	4.02	33.72	2.60	26.79	150	3.99	33.75	2.37	26.82	125	0.27
	192	3.84	33.89	1.24	26.94	200	3.82	33.90	1.18	26.95	113	0.33
	240	3.73	33.96	0.91	27.01	250	3.71	33.97	0.85	27.02	107	0.38
	313	3.66	34.07	0.58	27.10	300	3.66	34.05	0.63	27.09	101	0.44
47	PIONEER; July 13, 1958; 0805, 0626 GCT; 50°18'N, 177°28'E; wind, 240°, 20 kt; weather, sky obscured; sea, rough.											
	0	6.70	32.86	-	25.80	0	6.70	32.86		25.80	221	0.00
	10	7.32	32.86	6.69	25.71	10	7.32	32.86	6.69	25.71	229	0.02
	24	7.26	32.86	6.87	25.72	20	7.30	32.86	6.82	25.72	229	0.04
	49	4.34	32.94	7.11	26.14	30	6.20	32.88	6.97	25.88	214	0.07
	73	3.43	33.03	6.91	26.30	50	4.29	32.94	7.12	26.14	188	0.11
	98	3.32	33.21	5.70	26.45	75	3.40	33.04	6.85	26.31	173	0.15
	122	3.66	33.55	3.36	26.69	100	3.35	33.24	5.48	26.47	157	0.19
	146	3.86	33.81	1.69	26.88	150	3.83	33.82	1.62	26.89	118	0.26
	195	3.62	33.94	1.01	27.00	200	3.62	33.95	0.97	27.01	107	0.32
	244	3.65	34.00	0.76	27.05	250	3.65	34.01	0.74	27.06	103	0.37
	293	3.67	34.07	0.58	27.10	300	3.67	34.08	0.57	27.11	99	0.42
						400	3.58	34.15	0.44	27.17	93	0.52
	390	3.60	34.14	0.44	27.16	500	3.41	34.22	0.41	27.25	87	0.61
	488	3.43	34.21	0.41	27.24	600	3.23	34.27	0.41	27.30	82	0.69
	686	3.09	34.31	0.44	27.35	700	3.07	34.32	0.44	27.36	77	0.77
	1032	2.55	34.43	0.62	27.49	800	2.90	34.36	0.48	27.41	73	0.85
						1000	2.60	34.42	0.59	27.48	67	0.99
48	PIONEER; July 14, 1958; 0036 GCT; 49°58'N, 176°50'E; wind, 200°, 12 kt; weather, sky obscured; sea, slight.											
	0	6.80	32.87	-	25.79	0	6.80	32.87		25.79	221	0.00
	10	7.30	32.87	6.74	25.72	10	7.30	32.87	6.74	25.72	228	0.02
	25	7.28	32.87	6.83	25.73	20	7.29	32.87	6.80	25.73	228	0.04
	50	5.24	32.94	7.11	26.04	30	7.28	32.89	6.91	25.74	226	0.07
	75	4.07	32.97	7.07	26.19	50	5.24	32.94	7.11	26.04	198	0.11
	99	3.43	33.06	6.89	26.32	75	4.07	32.97	7.07	26.19	184	0.16
	124	3.16	33.24	5.67	26.49	100	3.41	33.06	6.87	26.32	171	0.20
	149	3.56	33.60	3.34	26.74	150	3.57	33.61	3.27	26.75	132	0.28
	198	3.75	33.93	1.02	26.98	200	3.75	33.94	1.00	26.99	109	0.34
	248	3.72	34.04	0.56	27.07	250	3.72	34.04	0.55	27.07	102	0.39
	322	3.63	34.13	0.46	27.15	300	3.66	34.11	0.41	27.14	96	0.44
49	PIONEER; July 14, 1958; 0710, 0614 GCT; 49°39'N, 176°11'E; wind, 140°, 4 kt; weather, sky obscured; sea, smooth.											
	0	7.00	32.87	-	25.76	0	7.00	32.87		25.76	224	0.00
	10	7.33	32.87	6.83	25.72	10	7.33	32.87	6.83	25.72	228	0.02
	25	7.30	32.88	6.80	25.73	20	7.32	32.87	6.80	25.72	228	0.05
	50	4.78	32.94	7.00	26.09	30	7.05	32.89	6.84	25.77	224	0.07
	75	3.49	33.02	7.17	26.28	50	4.78	32.94	7.00	26.09	193	0.11
	99	3.34	33.26	5.42	26.49	75	3.49	33.02	7.17	26.28	175	0.16
	124	3.79	33.64	2.88	26.75	100	3.37	33.28	5.30	26.50	154	0.20
	148	3.82	33.80	1.76	26.87	150	3.81	33.81	1.71	26.88	119	0.27
	198	3.71	33.94	0.95	26.99	200	3.71	33.94	0.93	26.99	109	0.32
	247	3.75	34.03	0.60	27.06	250	3.75	34.03	0.60	27.06	103	0.38
	321	3.66	34.10	0.52	27.13	300	3.69	34.08	0.54	27.11	99	0.43
						400	3.47	34.18	0.48	27.21	90	0.52
	394	3.48	34.18	0.49	27.21	500	3.31	34.25	0.39	27.28	84	0.61
	493	3.32	34.25	0.39	27.28	600	3.14	34.31	0.43	27.34	78	0.69
	690	3.00	34.35	0.46	27.39	700	2.98	34.35	0.46	27.39	74	0.76
	1034	2.48	34.46	0.67	27.52	800	2.83	34.39	0.52	27.44	70	0.84
						1000	2.53	34.45	0.65	27.51	64	0.97

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
PIONEER; July 15, 1958; 0106 GCT; 49°18'N, 175°37'E; wind, 150°, 8 kt; weather, sky obscured; sea, slight.											50
0	7.20	32.95	-	25.80	0	7.20	32.95		25.80	220	0.00
10	7.50	32.89	6.72	25.71	10	7.50	32.89	6.72	25.71	229	0.02
24	7.37	32.89	6.84	25.73	20	7.42	32.89	6.80	25.72	228	0.04
48	4.98	32.96	7.17	26.08	30	7.30	32.91	6.96	25.76	225	0.07
72	4.08	32.99	7.16	26.20	50	4.90	32.96	7.22	26.09	193	0.11
96	3.44	33.20	5.70	26.43	75	3.95	33.01	7.04	26.23	180	0.16
120	3.72	33.59	3.05	26.72	100	3.50	33.28	5.15	26.49	156	0.20
144	3.76	33.78	1.90	26.86	150	3.77	33.81	1.69	26.89	119	0.27
192	3.84	33.96	0.66	27.00	200	3.85	33.98	0.63	27.01	107	0.32
240	3.84	34.04	0.53	27.06	250	3.83	34.05	0.52	27.07	102	0.38
312	3.65	34.10	0.50	27.13	300	3.70	34.10	0.49	27.12	97	0.43
PIONEER; July 15, 1958; 0814, 0710 GCT; 49°00'N, 175°00'E; wind, 140°, 8 kt; weather, sky obscured; sea, smooth.											51
0	7.20	32.87	-	25.74	0	7.20	32.87		25.74	226	0.00
10	7.75	32.86	6.66	25.65	10	7.75	32.86	6.66	25.65	235	0.02
24	7.33	32.84	6.72	25.70	20	7.54	32.84	6.71	25.67	234	0.05
49	4.38	32.98	6.78	26.17	30	6.43	32.88	6.73	25.85	216	0.07
74	3.58	33.03	6.89	26.28	50	4.34	32.98	6.80	26.17	186	0.11
98	3.39	33.15	6.13	26.40	75	3.56	33.03	6.90	26.29	175	0.15
123	3.80	33.64	2.93	26.75	100	3.44	33.20	5.81	26.43	161	0.20
147	3.86	33.88	1.36	26.93	150	3.85	33.88	1.31	26.93	114	0.26
196	3.78	33.96	0.81	27.00	200	3.78	33.97	0.78	27.01	107	0.32
245	3.73	34.05	0.62	27.08	250	3.73	34.05	0.60	27.08	101	0.37
294	3.68	34.08	0.50	27.11	300	3.67	34.09	0.50	27.12	98	0.42
					400	3.52	34.19	0.45	27.21	90	0.52
392	3.53	34.19	0.46	27.21	500	3.37	34.24	0.40	27.27	85	0.60
490	3.39	34.24	0.39	27.26	600	3.20	34.29	0.45	27.32	80	0.68
687	3.06	34.32	0.49	27.36	700	3.04	34.32	0.49	27.36	77	0.76
1030	2.55	34.44	0.57	27.50	800	2.88	34.36	0.54	27.41	73	0.84
					1000	2.59	34.43	0.57	27.49	66	0.98
PIONEER; July 16, 1958; 0036 GCT; 49°30'N, 174°58'E; wind, 140°, 10 kt; weather, slight drizzle; sea, slight.											52
0	7.20	32.80	-	25.68	0	7.20	32.80		25.68	232	0.00
10	7.69	32.80	6.53	25.61	10	7.69	32.80	6.53	25.61	238	0.02
25	7.44	32.80	6.82	25.65	20	7.63	32.79	6.74	25.62	238	0.05
49	4.96	32.94	6.93	26.07	30	6.81	32.83	6.89	25.76	225	0.07
74	3.80	33.09	6.45	26.31	50	4.89	32.94	6.93	26.08	195	0.11
98	3.70	33.37	4.91	26.54	75	3.79	33.10	6.40	26.32	172	0.16
123	3.98	33.69	2.79	26.77	100	3.73	33.40	4.69	26.56	149	0.20
147	3.95	33.83	1.78	26.88	150	3.94	33.84	1.72	26.89	118	0.27
196	3.82	33.97	1.03	27.01	200	3.83	33.97	1.00	27.01	108	0.32
245	3.84	34.01	0.71	27.04	250	3.83	34.01	0.68	27.04	105	0.38
319	3.53	34.05	0.67	27.10	300	3.65	34.04	0.63	27.08	101	0.43

	OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
	Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
	m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
53	PIONEER; July 16, 1958; 0822, 0654 GCT; 50°00'N, 175°00'E; wind, 140°, 20 kt; weather, sky obscured; sea, rough.											
	0	7.00	32.82	-	25.73	0	7.00	32.82		25.73	228	0.00
	10	7.58	32.81	6.78	25.64	10	7.58	32.81	6.78	25.64	236	0.02
	25	7.24	32.85	6.85	25.72	20	7.42	32.83	6.83	25.68	233	0.05
	49	5.54	33.01	6.84	26.06	30	6.87	32.89	6.87	25.80	221	0.07
	74	4.00	33.04	6.66	26.25	50	5.46	33.01	6.83	26.07	196	0.11
	112	3.47	33.11	6.43	26.36	75	3.97	33.04	6.66	26.25	178	0.16
	122	3.64	33.61	3.30	26.74	100	3.47	33.08	6.52	26.33	170	0.20
	159	3.90	33.86	1.42	26.91	150	3.87	33.81	1.74	26.88	120	0.28
	197	3.80	33.95	1.14	26.99	200	3.79	33.95	1.13	26.99	109	0.33
						250	3.71	33.99	0.97	27.03	105	0.39
	392	3.50	34.12	0.68	27.16	300	3.63	34.03	0.85	27.07	102	0.44
	490	3.37	34.22	0.62	27.25	400	3.49	34.13	0.68	27.17	94	0.54
	686	3.14	34.33	0.45	27.36	500	3.36	34.23	0.60	27.26	86	0.63
	1032	2.59	34.42	0.57	27.48	600	3.25	34.29	0.50	27.32	81	0.71
						700	3.12	34.34	0.45	27.37	76	0.79
						800	2.98	34.37	0.43	27.41	73	0.86
						1000	2.65	34.42	0.54	27.48	67	1.00
54	PIONEER; July 17, 1958; 0128 GCT; 50°32'N, 174°58'E; wind, 100°, 8 kt; weather, sky obscured; sea, slight.											
	0	7.30	32.82	-	25.68	0	7.30	32.82		25.68	232	0.00
	10	7.79	32.78	6.65	25.58	10	7.79	32.78	6.65	25.58	241	0.02
	24	7.45	32.83	6.76	25.67	20	7.61	32.81	6.75	25.63	237	0.05
	48	5.54	33.06	6.37	26.10	30	6.94	32.90	6.68	25.80	221	0.07
	73	3.95	33.13	5.81	26.33	50	5.36	33.06	6.33	26.12	191	0.11
	97	3.88	33.30	5.24	26.47	75	3.94	33.14	5.80	26.34	170	0.16
	121	3.90	33.51	3.79	26.63	100	3.88	33.33	5.01	26.49	156	0.20
	145	3.91	33.68	3.36	26.77	150	3.90	33.71	3.09	26.79	128	0.27
	193	3.82	33.87	1.48	26.93	200	3.81	33.88	1.41	26.94	114	0.33
	241	3.78	33.94	1.08	26.99	250	3.77	33.95	1.02	27.00	109	0.38
	314	3.70	34.04	0.74	27.08	300	3.72	34.02	0.77	27.06	104	0.44
55	PIONEER; July 17, 1958; 0822, 0722 GCT; 51°00'N, 175°00'E; wind, 090°, 12 kt; weather, sky obscured; sea, slight.											
	0	7.20	32.71	-	25.61	0	7.20	32.71		25.61	238	0.00
	10	7.73	32.75	6.62	25.57	10	7.73	32.75	6.62	25.57	243	0.02
	25	7.40	32.78	6.72	25.64	20	7.55	32.77	6.69	25.61	239	0.05
	49	6.11	32.83	6.78	25.85	30	7.19	32.78	6.78	25.67	234	0.07
	74	4.02	33.03	6.24	26.24	50	5.99	32.84	6.75	25.87	214	0.12
	98	3.62	33.28	5.54	26.48	75	3.99	33.04	6.23	26.25	178	0.17
	123	3.99	33.51	3.79	26.63	100	3.66	33.30	5.35	26.49	156	0.21
	147	4.14	33.63	3.29	26.71	150	4.12	33.64	3.18	26.72	135	0.28
	196	3.86	33.82	1.87	26.88	200	3.85	33.84	1.79	26.90	118	0.34
	208	3.82	33.88	1.65	26.94	250	3.75	33.89	1.27	26.95	113	0.40
	248	3.75	33.89	1.28	26.95	300	3.76	33.97	0.96	27.01	108	0.46
						400	3.68	34.08	0.68	27.11	100	0.56
	386	3.71	34.07	0.67	27.10	500	3.54	34.12	0.68	27.15	96	0.66
	482	3.55	34.11	0.71	27.15	600	3.45	34.19	0.60	27.22	90	0.75
	675	3.38	34.23	0.56	27.26	700	3.35	34.24	0.55	27.27	86	0.84
	1014	2.96	34.37	0.53	27.41	800	3.24	34.29	0.52	27.32	82	0.92
						1000	2.98	34.37	0.53	27.41	75	1.08

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
PIONEER; July 18, 1958; 0107 GCT; 51°33'N, 175°00'E; wind, 360°, 2 kt; weather, overcast; sea, calm.											56
0	7.60	32.79	-	25.62	0	7.60	32.79		25.62	238	0.00
10	7.38	32.80	6.73	25.66	10	7.38	32.80	6.73	25.66	234	0.02
24	6.98	32.91	6.80	25.80	20	7.13	32.88	6.79	25.76	225	0.05
49	5.45	33.11	6.72	26.15	30	6.55	32.96	6.91	25.90	212	0.07
74	4.66	33.29	5.25	26.38	50	5.41	33.12	6.64	26.16	187	0.11
98	4.50	33.34	4.93	26.44	75	4.65	33.29	5.24	26.38	166	0.15
123	4.34	33.46	4.35	26.55	100	4.49	33.35	4.86	26.45	160	0.19
147	4.08	33.49	4.20	26.60	150	4.07	33.50	4.13	26.61	145	0.27
196	4.00	33.64	3.33	26.73	200	4.00	33.64	3.29	26.73	134	0.34
245	4.01	33.71	2.84	26.78	250	4.01	33.72	2.79	26.79	129	0.41
319	3.98	33.88	1.74	26.92	300	3.99	33.83	2.06	26.88	121	0.47
PIONEER; July 18, 1958; 0638 GCT; 52°00'N, 175°00'E; wind, 020°, 6 kt; weather, overcast; sea, smooth.											57
0	7.20	33.03	-	25.86	0	7.20	33.03		25.86	215	0.00
10	7.61	33.02	6.69	25.80	10	7.61	33.02	6.69	25.80	221	0.02
25	6.58	33.02	6.85	25.94	20	6.92	33.01	6.83	25.89	213	0.04
50	4.92	33.26	6.43	26.33	30	6.17	33.08	6.78	26.04	198	0.06
75	4.20	33.31	5.87	26.45	50	4.92	33.26	6.43	26.33	171	0.10
99	4.15	33.35	5.41	26.48	75	4.20	33.31	5.87	26.45	160	0.14
124	3.98	33.36	5.29	26.51	100	4.14	33.35	5.41	26.48	156	0.18
149	3.92	33.39	4.98	26.54	150	3.92	33.39	4.95	26.54	152	0.26
199	3.92	33.60	3.65	26.70	200	3.92	33.60	3.63	26.70	136	0.33
248	3.92	33.76	2.84	26.83	250	3.92	33.77	2.86	26.84	124	0.40
298	3.88	33.85	3.02	26.91	300	(3.88)	(33.85)	(3.02)	(26.91)	(118)	(0.46)
PIONEER; July 19, 1958; 0114 GCT; 52°34'N, 175°00'E; wind, 020°, 2 kt; weather, cloudy; sea, smooth.											58
0	7.80	33.02	-	25.77	0	7.80	33.02		25.77	223	0.00
10	7.46	32.94	6.92	25.76	10	7.46	32.94	6.92	25.76	225	0.02
24	6.86	32.97	6.94	25.86	20	7.05	32.96	6.97	25.83	218	0.04
49	5.36	33.11	6.32	26.16	30	6.40	33.01	6.78	25.95	206	0.06
73	4.92	33.21	5.94	26.29	50	5.35	33.11	6.31	26.16	187	0.10
98	4.26	33.33	5.25	26.46	75	4.85	33.22	5.87	26.30	173	0.15
123	4.20	33.39	4.96	26.51	100	4.26	33.34	5.23	26.46	158	0.19
147	4.12	33.41	4.74	26.53	150	4.10	33.42	4.67	26.54	151	0.27
196	3.94	33.58	3.66	26.69	200	3.94	33.59	3.58	26.69	137	0.34
246	3.95	33.72	2.76	26.80	250	3.95	33.73	2.69	26.80	127	0.40
320	3.84	33.90	1.78	26.95	300	3.88	33.85	2.00	26.91	118	0.47
PIONEER; July 19, 1958; 0735, 0643 GCT; 53°00'N, 175°00'E; wind, 040°, 2 kt; weather, overcast; sea, calm.											59
0	8.40	33.09	-	25.74	0	8.40	33.09		25.74	226	0.00
10	7.61	33.08	6.85	25.85	10	7.61	33.08	6.85	25.85	216	0.02
24	6.82	33.09	6.97	25.96	20	7.08	33.08	6.97	25.92	210	0.04
49	4.68	33.19	6.33	26.30	30	6.14	33.12	6.80	26.07	195	0.06
74	4.36	33.23	5.82	26.37	50	4.68	33.19	6.28	26.30	174	0.10
98	3.50	33.26	6.29	26.47	75	4.30	33.23	5.87	26.37	167	0.14
123	3.75	33.37	5.22	26.54	100	3.52	33.27	6.20	26.48	157	0.18
147	3.97	33.47	4.39	26.60	150	3.96	33.47	4.37	26.60	146	0.26
196	3.88	33.55	3.80	26.67	200	3.90	33.57	3.72	26.68	138	0.33
245	4.02	33.72	2.81	26.79	250	4.01	33.74	2.68	26.81	127	0.40
295	3.96	33.86	1.72	26.91	300	3.95	33.87	1.68	26.92	117	0.46
					400	3.80	34.00	1.02	27.03	107	0.57
392	3.82	33.99	1.04	27.02	500	3.65	34.07	0.81	27.10	101	0.67
489	3.66	34.06	0.83	27.10	600	3.58	34.12	0.66	27.15	97	0.77
687	3.50	34.17	0.57	27.20	700	3.49	34.18	0.56	27.21	92	0.87
1029	3.04	34.33	0.50	27.37	800	3.37	34.23	0.49	27.26	88	0.96
					1000	3.09	34.32	0.49	27.36	80	1.12

SBL

MV PIONEER

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m
60	PIONEER; July 20, 1958; 0109 GCT; 53°30'N, 175°00'E; wind, 160°, 4 kt; weather, sky obscured; sea, smooth.										
0	8.00	33.04	-	25.76	0	8.00	33.04		25.76	225	0.00
10	7.79	33.02	6.81	25.77	10	7.79	33.02	6.81	25.77	223	0.02
24	6.29	33.06	6.85	26.01	20	6.66	33.05	6.87	25.95	206	0.04
49	5.12	33.14	6.45	26.21	30	6.02	33.08	6.70	26.06	196	0.06
73	3.92	33.17	6.72	26.36	50	5.05	33.14	6.47	26.22	181	0.10
98	3.58	33.22	6.27	26.44	75	3.88	33.17	6.69	26.37	167	0.14
123	3.58	33.29	5.68	26.49	100	3.57	33.22	6.20	26.44	161	0.19
147	3.75	33.39	5.53	26.55	150	3.78	33.40	5.42	26.56	150	0.26
196	4.05	33.53	3.94	26.64	200	4.04	33.54	3.86	26.64	142	0.34
245	3.99	33.66	3.04	26.74	250	3.99	33.67	2.95	26.75	132	0.41
319	3.97	33.86	1.69	26.91	300	3.97	33.81	2.04	26.87	122	0.47
61	PIONEER; July 20, 1958; 0819, 0720 GCT; 53°15'N, 175°45'E; wind, 220°, 3 kt; weather, sky obscured; sea, smooth.										
0	7.60	33.05	-	25.82	0	7.60	33.05		25.82	218	0.00
10	7.72	33.04	6.87	25.80	10	7.72	33.04	6.87	25.80	221	0.02
25	5.84	33.08	7.09	26.08	20	6.41	33.07	7.04	26.00	202	0.04
49	3.88	33.14	6.85	26.34	30	5.30	33.09	7.04	26.15	188	0.06
74	3.50	33.19	6.57	26.42	50	3.86	33.14	6.84	26.34	169	0.10
99	3.45	33.24	6.04	26.46	75	3.49	33.19	6.55	26.42	162	0.14
123	3.56	33.33	5.41	26.52	100	3.46	33.25	6.00	26.47	158	0.18
148	3.50	33.35	5.31	26.55	150	3.51	33.36	5.24	26.55	150	0.26
197	3.80	33.53	3.82	26.66	200	3.82	33.55	3.72	26.67	139	0.33
246	4.02	33.74	2.49	26.81	250	4.02	33.75	2.42	26.81	126	0.39
295	3.98	33.85	1.75	26.90	300	3.97	33.86	1.71	26.91	118	0.46
					400	3.81	33.98	1.11	27.02	108	0.57
392	3.82	33.97	1.14	27.01	500	3.67	34.05	0.84	27.09	102	0.67
490	3.68	34.04	0.85	27.08	600	3.55	34.11	0.73	27.15	97	0.77
687	3.44	34.16	0.65	27.20	700	3.42	34.17	0.64	27.21	92	0.87
1032	3.00	34.33	0.54	27.37	800	3.30	34.22	0.58	27.26	88	0.96
					1000	3.04	34.32	0.54	27.36	79	1.12
62	PIONEER; July 20, 1958; 2325 GCT; 53°06'N, 176°25'E; wind, 240°, 2 kt; weather, slight rain; sea, smooth.										
0	7.90	33.01		25.75	0	7.90	33.01		25.75	226	0.00
10	7.68	33.04		25.80	10	7.68	33.04		25.80	220	0.02
25	6.15	33.07		26.03	20	6.67	33.06		25.96	206	0.04
49	3.51	33.12		26.36	30	5.41	33.08		26.13	190	0.06
74	3.22	33.19		26.44	50	3.49	33.12		26.36	167	0.10
99	3.15	33.26		26.51	75	3.21	33.19		26.45	160	0.14
123	3.65	33.39		26.56	100	3.18	33.27		26.51	154	0.18
148	3.84	33.53		26.66	150	3.84	33.54		26.66	140	0.25
198	3.90	33.73		26.81	200	3.90	33.74		26.82	126	0.32
248	3.85	33.85		26.91	250	3.85	33.85		26.91	117	0.38
322	3.77	33.97		27.01	300	3.79	33.94		26.99	110	0.44

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m

63

PIONEER; July 21, 1958; 0334, 0232 GCT; 53°07'N, 176°55'E; wind, 320°, 8 kt; weather, sky obscured; sea, slight.

0	7.90	33.07	-	25.80	0	7.90	33.07		25.80	221	0.00
10	7.68	33.07	6.87	25.83	10	7.68	33.07	6.87	25.83	218	0.02
24	6.81	33.08	7.13	25.96	20	7.12	33.08	7.07	25.91	210	0.04
49	3.72	33.14	7.28	26.36	30	5.84	33.10	7.20	26.09	193	0.06
73	3.07	33.17	7.04	26.44	50	3.68	33.14	7.27	26.36	168	0.10
98	2.95	33.23	7.02	26.50	75	3.07	33.18	7.04	26.45	159	0.14
122	2.68	33.26	6.90	26.55	100	2.92	33.23	7.04	26.50	154	0.18
147	2.72	33.35	5.79	26.62	150	2.82	33.38	5.53	26.63	142	0.25
196	3.84	33.71	2.65	26.80	200	3.84	33.72	2.56	26.81	126	0.32
245	3.84	33.85	1.69	26.91	250	3.84	33.86	1.65	26.92	116	0.38
294	3.84	33.93	-	26.97	300	3.83	33.94	1.27	26.98	111	0.44
					400	3.67	34.05	0.77	27.09	102	0.54
390	3.68	34.04	0.80	27.08	500	3.54	34.13	0.62	27.16	95	0.64
488	3.56	34.12	0.63	27.15	600	3.41	34.19	0.56	27.22	90	0.74
683	3.29	34.24	0.53	27.27	700	3.27	34.25	0.52	27.28	85	0.82
1026	2.78	34.44	0.50	27.48	800	3.12	34.31	0.49	27.35	79	0.90
					1000	2.82	34.43	0.50	27.47	68	1.05

64

PIONEER; July 22, 1958; 0007 GCT; 53°03'N, 177°26'E; wind, 300°, 8 kt; weather, partly cloudy; sea, slight.

0	8.00	33.14		25.84	0	8.00	33.14		25.84	217	0.00
10	7.62	33.14		25.89	10	7.62	33.14		25.89	212	0.02
25	6.47	33.17		26.07	20	6.90	33.16		26.01	201	0.04
50	3.69	33.21		26.42	30	5.73	33.18		26.17	186	0.06
74	3.14	33.23		26.48	50	3.69	33.21		26.42	162	0.10
99	2.89	33.25		26.52	75	3.13	33.23		26.48	156	0.14
124	2.75	33.32		26.59	100	2.87	33.25		26.52	152	0.18
148	3.36	33.53		26.70	150	3.39	33.54		26.71	135	0.25
198	3.80	33.78		26.86	200	3.80	33.78		26.86	122	0.31
247	3.78	33.88		26.94	250	3.78	33.89		26.95	114	0.37
321	3.70	34.00		27.04	300	3.73	33.97		27.02	108	0.42

65

PIONEER; July 22, 1958; 0615, 0516 GCT; 53°00'N, 178°00'E; wind, 220°, 15 kt; weather, sky obscured; sea, slight.

0	8.00	33.11	-	25.81	0	8.00	33.11		25.81	219	0.00
10	7.15	33.11	7.00	25.93	10	7.15	33.11	7.00	25.93	208	0.02
25	5.71	33.12	7.15	26.13	20	6.17	33.11	7.10	26.06	196	0.04
49	3.75	33.18	7.29	26.39	30	5.20	33.14	7.19	26.20	183	0.06
74	2.96	33.19	7.22	26.47	50	3.71	33.18	7.30	26.39	165	0.10
99	2.72	33.25	6.72	26.54	75	2.95	33.19	7.21	26.47	158	0.14
123	2.67	33.36	5.64	26.63	100	2.70	33.25	6.70	26.54	151	0.17
148	3.76	33.65	3.20	26.76	150	3.76	33.66	3.14	26.77	130	0.24
197	3.80	33.82	1.95	26.89	200	3.80	33.83	1.90	26.90	118	0.31
246	3.77	33.92	1.30	26.97	250	3.77	33.93	1.27	26.98	110	0.36
295	3.77	34.00	0.95	27.04	300	3.76	34.00	0.94	27.04	106	0.42
					400	3.62	34.10	0.71	27.13	97	0.52
380	3.65	34.08	0.74	27.11	500	3.47	34.18	0.57	27.21	91	0.61
478	3.51	34.17	0.58	27.20	600	3.31	34.24	0.54	27.27	85	0.70
673	3.20	34.27	0.52	27.31	700	3.16	34.28	0.52	27.32	81	0.78
1014	2.72	34.39	0.56	27.45	800	3.01	34.32	0.50	27.36	78	0.86
					1000	2.74	34.39	0.55	27.44	71	1.01

SBL

MV PIONEER

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
66	PIONEER; July 24, 1958; 0537, 0442 GCT; 53°00'N, 179°48'E; wind, 050°, 15 kt; weather, sky obscured; sea, moderate.										
0	7.20	33.03	-	25.86	0	7.20	33.03		25.86	215	0.00
10	7.82	33.01	6.75	25.76	10	7.82	33.01	6.75	25.76	224	0.02
25	6.58	33.11	7.04	26.01	20	7.02	33.08	6.96	25.93	209	0.04
50	3.92	33.14	7.28	26.34	30	5.90	33.12	7.12	26.10	192	0.06
75	3.14	33.17	7.11	26.44	50	3.92	33.14	7.28	26.34	170	0.10
99	3.14	33.23	6.75	26.48	75	3.14	33.17	7.11	26.44	161	0.14
124	2.43	33.25	6.69	26.56	100	3.09	33.23	6.78	26.49	156	0.18
149	2.78	33.36	5.51	26.62	150	2.82	33.37	5.43	26.62	143	0.26
198	4.00	33.73	2.48	26.80	200	4.00	33.74	2.42	26.81	127	0.32
248	3.92	33.87	1.52	26.92	250	3.92	33.87	1.51	26.92	116	0.38
297	3.87	33.93	1.23	26.97	300	3.86	33.93	1.21	26.97	112	0.44
					400	3.61	34.06	0.67	27.10	100	0.55
392	3.62	34.05	0.67	27.09	500	3.47	34.13	0.63	27.17	94	0.64
490	3.48	34.12	0.64	27.16	600	3.35	34.18	0.56	27.22	90	0.74
686	3.25	34.23	0.52	27.27	700	3.23	34.24	0.52	27.28	85	0.82
1029	2.80	34.36	0.54	27.41	800	3.11	34.28	0.49	27.32	82	0.91
					1000	2.84	34.35	0.53	27.40	75	1.06
67	PIONEER; July 25, 1958; 0038 GCT; 53°04'N, 179°16'W; wind, 100°, 11 kt; weather, cloudy; sea, slight.										
0	7.10	33.07		25.91	0	7.10	33.07		25.91	210	0.00
10	6.61	33.11		26.01	10	6.61	33.11		26.01	201	0.02
24	5.24	33.13		26.19	20	5.53	33.12		26.15	188	0.04
48	5.18	33.30		26.33	30	5.24	33.19		26.24	179	0.06
74	4.95	33.31		26.36	50	5.16	33.30		26.33	170	0.09
95	4.77	33.35		26.42	75	4.94	33.31		26.37	168	0.14
119	4.62	33.38		26.46	100	4.75	33.36		26.43	162	0.18
143	4.39	33.39		26.49	150	4.27	33.39		26.50	155	0.26
192	3.84	33.44		26.58	200	3.86	33.47		26.61	146	0.33
240	3.91	33.61		26.71	250	3.91	33.64		26.74	134	0.40
268	3.88	33.70		26.79							
68	PIONEER; July 25, 1958; 0759, 0633 GCT; 53°00'N, 178°30'W; wind, 120°, 14 kt; weather, sky obscured; sea, slight.										
0	6.90	33.08	-	25.94	0	6.90	33.08		25.94	207	0.00
10	7.50	33.06	6.75	25.85	10	7.50	33.06	6.75	25.85	216	0.02
25	7.28	33.05	6.90	25.87	20	7.49	33.05	6.84	25.84	217	0.04
50	4.25	33.11	7.20	26.28	30	6.49	33.06	7.02	25.98	204	0.06
74	3.50	33.16	6.76	26.40	50	4.25	33.11	7.20	26.28	175	0.10
99	3.57	33.22	6.45	26.44	75	3.49	33.16	6.76	26.40	164	0.14
124	4.06	33.32	5.62	26.47	100	3.60	33.22	6.42	26.43	161	0.18
148	3.99	33.40	5.08	26.54	150	3.97	33.40	5.11	26.54	152	0.26
198	3.68	33.48	4.94	26.63	200	3.69	33.49	4.86	26.64	142	0.34
247	3.91	33.64	3.28	26.74	250	3.91	33.65	3.21	26.74	133	0.40
296	3.92	33.75	2.40	26.82	300	3.91	33.76	2.37	26.83	125	0.47
					400	3.66	33.92	1.76	26.98	111	0.59
391	3.67	33.90	1.86	26.97	500	3.53	34.07	1.00	27.12	99	0.69
489	3.54	34.06	1.02	27.11	600	3.43	34.14	0.78	27.18	94	0.79
685	3.33	34.20	0.65	27.24	700	3.31	34.21	0.63	27.25	88	0.88
1028	2.85	34.35	0.55	27.40	800	3.18	34.26	0.54	27.30	84	0.97
					1000	2.89	34.34	0.53	27.39	76	1.13

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m

69

PIONEER; July 26, 1958; 0105 GCT; 52°59'N, 177°35'W; wind, 140°, 18 kt; weather, sky obscured; sea, moderate.

0	7.40	33.12		25.91	0	7.40	33.12	25.91	210	0.00
10	7.88	33.11		25.83	10	7.88	33.11	25.83	218	0.02
25	7.20	33.12		25.93	20	7.50	33.11	25.88	213	0.04
49	4.73	33.21		26.31	30	6.55	33.15	26.04	198	0.06
74	3.93	33.22		26.40	50	4.68	33.21	26.32	172	0.10
98	4.09	33.30		26.45	75	3.94	33.22	26.40	164	0.14
122	4.05	33.32		26.47	100	4.10	33.30	26.45	160	0.18
146	3.70	33.32		26.50	150	3.58	33.31	26.51	154	0.26
195	2.95	33.30		26.56	200	3.07	33.32	26.56	149	0.34
244	3.80	33.50		26.64	250	3.86	33.52	26.65	142	0.41
317	3.85	33.71		26.80	300	3.97	33.67	26.75	132	0.48

70

PIONEER; July 26, 1958; 0750, 0650 GCT; 53°01'N, 176°54'W; wind, 120°, 15 kt; weather, sky obscured; sea, moderate.

0	7.30	33.07	-	25.88	0	7.30	33.07		25.88	213	0.00
10	7.93	33.06	6.66	25.78	10	7.93	33.06	6.66	25.78	222	0.02
25	7.84	33.05	6.75	25.79	20	7.90	33.05	6.72	25.78	223	0.04
50	4.18	33.09	7.03	26.27	30	7.70	33.06	6.84	25.82	219	0.07
74	3.85	33.11	6.85	26.32	50	4.18	33.09	7.03	26.27	176	0.11
99	3.70	33.12	6.70	26.34	75	3.84	33.11	6.85	26.32	172	0.15
124	3.62	33.15	6.47	26.38	100	3.70	33.12	6.69	26.34	170	0.19
148	3.53	33.21	6.14	26.43	150	3.53	33.21	6.14	26.43	162	0.28
198	3.40	33.28	6.07	26.50	200	3.38	33.28	6.09	26.50	155	0.35
247	3.18	33.31	6.03	26.54	250	3.21	33.32	5.95	26.55	151	0.43
296	3.63	33.44	4.80	26.61	300	3.65	33.46	4.67	26.62	145	0.50
					400	3.91	33.78	2.30	26.85	124	0.64
393	3.93	33.77	2.37	26.84	500	3.69	33.94	1.40	27.00	111	0.76
491	3.70	33.93	1.44	26.99	600	3.53	34.06	0.97	27.11	101	0.86
688	3.40	34.14	0.71	27.18	700	3.38	34.15	0.67	27.19	93	0.96
1033	2.90	34.33	0.53	27.38	800	3.23	34.23	0.49	27.27	86	1.05
					1000	2.95	34.32	0.48	27.37	78	1.22

71

PIONEER; July 27, 1958; 0049 GCT; 53°00'N, 176°04'W; wind, 060°, 8 kt; weather, sky obscured; sea, slight.

0	7.90	33.13		25.84	0	7.90	33.13	25.84	216	0.00
10	8.15	33.12		25.80	10	8.15	33.12	25.80	221	0.02
25	7.26	33.08		25.89	20	7.61	33.09	25.85	216	0.04
50	4.62	33.12		26.25	30	6.58	33.09	25.99	203	0.06
74	3.93	33.12		26.32	50	4.62	33.12	26.25	178	0.10
99	3.74	33.17		26.38	75	3.92	33.12	26.32	172	0.15
124	3.52	33.22		26.44	100	3.73	33.17	26.38	166	0.19
148	3.40	33.25		26.48	150	3.38	33.25	26.48	157	0.27
198	3.19	33.31		26.54	200	3.22	33.32	26.55	151	0.35
247	3.75	33.49		26.63	250	3.77	33.50	26.64	143	0.42
321	3.74	33.67		26.78	300	3.85	33.63	26.73	134	0.49

SBL

MV PIONEER

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
72	PIONEER; July 27, 1958; 0740, 0642 GCT; 52°58'N, 175°13'W; wind, 010°, 4 kt; weather, fog; sea, smooth.										
0	7.70	33.10	-	25.85	0	7.70	33.10		25.85	216	0.00
10	7.74	33.10	6.72	25.84	10	7.74	33.10	6.72	25.84	217	0.02
25	7.44	33.10	6.76	25.88	20	7.65	33.10	6.75	25.86	216	0.04
50	4.80	33.18	6.71	26.28	30	6.81	33.12	6.73	25.99	203	0.06
74	3.49	33.21	6.92	26.44	50	4.80	33.18	6.71	26.28	176	0.10
99	3.46	33.25	6.44	26.47	75	3.49	33.21	6.90	26.44	161	0.14
123	3.26	33.30	6.29	26.53	100	3.45	33.25	6.44	26.47	157	0.18
148	3.22	33.32	5.90	26.55	150	3.24	33.33	5.84	26.55	150	0.26
197	3.64	33.47	4.50	26.63	200	3.65	33.47	4.45	26.63	143	0.34
246	3.74	33.59	3.45	26.71	250	3.75	33.63	3.33	26.74	133	0.40
295	3.82	33.93	2.23	26.98	300	3.81	33.93	2.16	26.98	111	0.46
					400	3.68	33.99	1.23	27.04	106	0.57
392	3.69	33.98	1.27	27.03	500	3.53	34.08	0.90	27.12	99	0.68
490	3.54	34.07	0.92	27.11	600	3.38	34.15	0.72	27.19	93	0.77
687	3.26	34.21	0.60	27.25	700	3.24	34.22	0.59	27.26	87	0.86
1032	2.78	34.35	0.50	27.41	800	3.10	34.27	0.50	27.32	82	0.95
					1000	2.82	34.34	0.49	27.40	75	1.10
73	PIONEER; July 28, 1958; 0113 GCT; 52°38'N, 175°45'W; wind, 360°, 2 kt; weather, fog; sea, smooth.										
0	8.00	33.13		25.83	0	8.00	33.13		25.83	218	0.00
10	7.92	33.13		25.84	10	7.92	33.13		25.84	217	0.02
24	7.25	33.13		25.93	20	7.48	33.13		25.90	211	0.04
48	5.26	33.21		26.25	30	6.65	33.15		26.03	199	0.06
73	4.32	33.25		26.39	50	5.17	33.21		26.26	177	0.10
97	3.70	33.25		26.45	75	4.25	33.25		26.39	165	0.14
121	3.44	33.28		26.50	100	3.66	33.25		26.45	159	0.19
146	3.22	33.30		26.53	150	3.24	33.32		26.55	151	0.26
175	3.40	33.41		26.60	200	3.61	33.49		26.65	142	0.34
244	3.85	33.62		26.73	250	3.87	33.64		26.74	133	0.40
316	3.88	33.83		26.89	300	3.91	33.78		26.85	124	0.47
74	PIONEER; July 28, 1958; 0735, 0635 GCT; 52°22'N, 176°17'W; wind, 320°, 2 kt; weather, fog; sea, smooth.										
0	7.60	33.12	-	25.88	0	7.60	33.12		25.88	213	0.00
10	7.80	33.12	6.71	25.85	10	7.80	33.12	6.71	25.85	216	0.02
25	7.52	33.13	6.82	25.90	20	7.71	33.13	6.79	25.87	214	0.04
50	5.20	33.17	6.97	26.23	30	6.98	33.14	6.89	25.98	204	0.06
74	3.90	33.21	6.72	26.40	50	5.20	33.17	6.97	26.23	181	0.10
99	3.40	33.22	6.70	26.45	75	3.87	33.21	6.72	26.40	164	0.14
124	3.36	33.28	6.47	26.50	100	3.40	33.22	6.69	26.45	159	0.18
149	3.07	33.29	6.34	26.54	150	3.07	33.29	6.32	26.54	151	0.26
198	3.29	33.40	5.01	26.61	200	3.32	33.41	4.93	26.61	145	0.34
248	3.80	33.60	3.42	26.72	250	3.80	33.61	3.37	26.72	135	0.41
297	3.83	33.75	2.43	26.83	300	3.83	33.76	2.40	26.84	124	0.47
					400	3.71	33.92	1.47	26.98	112	0.59
390	3.72	33.91	1.51	26.97	500	3.56	34.03	1.09	27.08	103	0.70
488	3.58	34.02	1.12	27.07	600	3.41	34.13	0.83	27.18	94	0.80
684	3.28	34.20	0.67	27.24	700	3.26	34.21	0.65	27.25	88	0.89
1025	2.78	34.35	0.56	27.41	800	3.11	34.27	0.54	27.31	82	0.97
					1000	2.82	34.35	0.54	27.40	74	1.13

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m

PIONEER; August 5, 1958; 0527, 0546 GCT; 51°40'N, 175°00'W; wind, 270°, 2 kt; weather, sky obscured; sea, slight. 75

0	5.80	33.15	-	26.14	0	5.80	33.15		26.14	188	0.00
10	6.05	33.15	6.35	26.11	10	6.05	33.15	6.35	26.11	191	0.02
25	5.89	33.21	6.16	26.18	20	5.95	33.19	6.26	26.15	187	0.04
50	5.40	33.26	5.04	26.27	30	5.78	33.22	5.92	26.20	183	0.06
75	5.04	33.32	4.07	26.36	50	5.40	33.26	5.04	26.27	176	0.09
100	4.96	33.39	3.96	26.43	75	5.04	33.32	4.07	26.36	168	0.14
125	4.84	33.40	3.92	26.45	100	4.96	33.39	3.96	26.43	162	0.18
150	4.67	33.48	3.73	26.53	150	4.67	33.48	3.73	26.53	153	0.26
200	4.58	33.58	3.17	26.62	200	4.58	33.58	3.17	26.62	145	0.33
					250	4.20	33.79	1.98	26.83	125	0.40
250	4.20	33.79	1.98	26.83	300	4.05	33.93	1.22	26.95	114	0.46
316	4.05	33.96	1.06	26.98							

PIONEER; August 5, 1958; 0910, 0818 GCT; 51°30'N, 175°00'W; wind, 270°, 7 kt; weather, sky obscured; sea, smooth. 76

0	8.50	32.40	-	25.18	0	8.50	32.40		25.18	279	0.00
10	8.71	32.40	6.53	25.15	10	8.71	32.40	6.53	25.15	282	0.03
25	8.26	32.44	6.53	25.25	20	8.52	32.41	6.55	25.19	279	0.06
50	5.35	32.82	6.04	25.93	30	7.49	32.52	6.47	25.42	257	0.08
74	4.72	33.12	5.07	26.24	50	5.35	32.82	6.04	25.93	209	0.13
99	4.52	33.49	3.58	26.55	75	4.71	33.14	5.00	26.26	178	0.18
124	4.30	33.67	2.89	26.72	100	4.51	33.50	3.56	26.56	149	0.22
149	4.12	33.73	2.15	26.79	150	4.12	33.73	2.13	26.79	128	0.29
198	4.17	33.91	1.16	26.92	200	4.17	33.91	1.14	26.92	116	0.35
247	4.12	34.00	0.72	27.00	250	4.11	34.00	0.71	27.00	109	0.40
296	3.92	34.05	0.58	27.06	300	3.91	34.05	0.57	27.06	103	0.46
					400	3.64	34.15	0.46	27.17	94	0.56
384	3.67	34.13	0.46	27.15	500	3.48	34.23	0.44	27.25	87	0.65
482	3.50	34.22	0.45	27.24	600	3.35	34.29	0.40	27.31	82	0.73
679	3.24	34.33	0.39	27.35	700	3.21	34.34	0.39	27.36	77	0.81
1024	2.68	34.43	0.57	27.48	800	3.06	34.38	0.41	27.41	74	0.89
					1000	2.72	34.43	0.55	27.48	67	1.03

PIONEER; August 6, 1958; 0045 GCT; 50°45'N, 175°00'W; wind, 200°, 4 kt; weather, slight drizzle; sea, smooth. 77

0	8.60	32.56	-	25.29	0	8.60	32.56		25.29	269	0.00
10	9.05	32.56	6.50	25.22	10	9.05	32.56	6.50	25.22	276	0.03
25	8.84	32.57	6.57	25.26	20	9.00	32.57	6.55	25.24	274	0.05
50	4.85	32.82	6.63	25.99	30	8.10	32.61	6.68	25.41	258	0.08
75	4.10	33.09	5.54	26.28	50	4.85	32.82	6.63	25.99	203	0.13
99	4.19	33.63	2.61	26.70	75	4.10	33.09	5.54	26.28	176	0.17
124	4.13	33.84	1.61	26.87	100	4.19	33.64	2.56	26.71	135	0.21
149	4.07	33.95	0.87	26.97	150	4.07	33.95	0.86	26.97	111	0.28
198	4.02	34.00	0.55	27.01	200	4.01	34.00	0.55	27.01	107	0.33
247	3.86	34.07	0.50	27.08	250	3.85	34.07	0.50	27.08	101	0.38
321	3.71	34.11	0.57	27.13	300	3.74	34.11	0.54	27.13	97	0.43

SBL

MV PIONEER

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
78	PIONEER; August 6, 1958; 0919, 0817 GCT; 50°00'N, 175°00'W; wind, 270°, 4 kt; weather, fog in patches; sea, smooth.										
0	8.50	32.54	-	25.29	0	8.50	32.54		25.29	269	0.00
10	9.00	32.54	6.55	25.22	10	9.00	32.54	6.55	25.22	276	0.03
25	8.94	32.54	6.55	25.23	20	8.98	32.54	6.55	25.22	276	0.06
50	5.78	32.89	7.04	25.94	30	8.60	32.58	6.64	25.31	268	0.08
74	3.71	33.09	7.08	26.32	50	5.78	32.89	7.04	25.94	208	0.13
99	3.18	33.18	6.75	26.44	75	3.68	33.09	7.09	26.32	172	0.18
124	3.28	33.44	5.10	26.64	100	3.18	33.19	6.69	26.45	160	0.22
148	3.35	33.69	3.57	26.83	150	3.34	33.70	3.53	26.84	123	0.29
198	3.25	33.81	2.62	26.94	200	3.25	33.81	2.59	26.94	114	0.35
247	3.34	33.91	1.90	27.01	250	3.34	33.92	1.87	27.01	107	0.40
297	3.40	34.00	1.42	27.07	300	3.40	34.00	1.41	27.07	102	0.46
					400	3.40	34.11	1.00	27.16	94	0.55
393	3.40	34.10	1.02	27.15	500	3.34	34.20	0.78	27.24	88	0.64
492	3.35	34.19	0.78	27.23	600	3.20	34.26	0.73	27.30	83	0.73
689	3.08	34.31	0.71	27.35	700	3.06	34.32	0.71	27.36	77	0.81
1034	2.59	34.46	0.74	27.51	800	2.92	34.37	0.69	27.41	73	0.88
					1000	2.64	34.45	0.73	27.50	65	1.02
79	PIONEER; August 7, 1958; 0013 GCT; 49°30'N, 175°00'W; wind, 160°, 8 kt; weather, sky obscured; sea, smooth.										
0	9.00	32.67	-	25.32	0	9.00	32.67		25.32	266	0.00
10	9.07	32.67	6.56	25.31	10	9.07	32.67	6.56	25.31	268	0.03
24	9.03	32.67	6.69	25.31	20	9.07	32.67	6.65	25.31	268	0.05
49	5.07	32.93	6.74	26.05	30	8.90	32.70	6.79	25.36	263	0.08
73	4.33	33.14	5.88	26.30	50	5.03	32.94	6.69	26.06	196	0.13
98	3.81	33.22	5.85	26.41	75	4.27	33.14	5.90	26.30	173	0.17
122	3.68	33.35	5.30	26.53	100	3.80	33.23	5.82	26.42	162	0.22
146	3.55	33.55	4.24	26.70	150	3.52	33.57	4.10	26.72	134	0.29
195	3.28	33.78	2.81	26.91	200	3.28	33.79	2.73	26.92	116	0.35
244	3.34	33.87	2.11	26.97	250	3.35	33.88	2.03	26.98	110	0.41
317	3.50	34.01	1.19	27.07	300	3.46	33.98	1.39	27.05	104	0.46
80	PIONEER; August 7, 1958; 0648, 0522 GCT; 49°00'N, 175°00'W; wind, 170°, 4 kt; weather, fog; sea, smooth.										
0	9.10	32.71	-	25.33	0	9.10	32.71		25.33	265	0.00
10	9.18	32.71	6.60	25.32	10	9.18	32.71	6.60	25.32	266	0.03
25	9.04	32.72	6.69	25.35	20	9.15	32.71	6.64	25.33	266	0.05
50	5.24	32.87	7.10	25.98	30	8.80	32.76	6.81	25.42	257	0.08
74	3.96	32.95	7.06	26.18	50	5.24	32.87	7.10	25.98	204	0.13
100	3.28	33.06	6.96	26.34	75	3.92	32.95	7.06	26.19	184	0.17
117	3.26	33.12	6.68	26.39	100	3.28	33.06	6.96	26.34	170	0.22
159	3.50	33.56	3.90	26.71	150	3.49	33.48	4.37	26.65	141	0.30
196	3.35	33.78	2.72	26.90	200	3.36	33.79	2.65	26.91	117	0.36
289	3.56	33.99	-	27.05	250	3.50	33.92	1.93	27.00	109	0.42
					300	3.57	34.00	1.36	27.06	104	0.47
392	3.55	34.09	0.74	27.13	400	3.54	34.10	0.74	27.14	97	0.57
490	3.40	34.17	0.68	27.21	500	3.39	34.18	0.68	27.22	90	0.66
687	3.11	34.32	0.60	27.35	600	3.24	34.26	0.63	27.29	83	0.75
1030	2.60	34.43	0.62	27.49	700	3.09	34.33	0.60	27.36	77	0.83
					800	2.94	34.38	0.58	27.42	72	0.90
					1000	2.64	34.43	0.60	27.48	67	1.04

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
PIONEER; August 8, 1958; 0638, 0651 GCT; 49°59'N, 173°32'W; wind, 230°, 14 kt; weather, fog; sea, rough.											81
0	8.80	32.62	-	25.31	0	8.80	32.62		25.31	267	0.00
10	9.31	32.60	6.61	25.21	10	9.31	32.60	6.61	25.21	276	0.03
25	8.87	32.64	6.69	25.31	20	9.17	32.62	6.68	25.25	273	0.05
50	5.12	32.86	6.62	25.99	30	7.89	32.68	6.76	25.49	250	0.08
75	4.23	33.18	5.47	26.34	50	5.12	32.86	6.62	25.99	203	0.12
100	3.72	33.38	4.82	26.55	75	4.23	33.18	5.47	26.34	170	0.17
125	4.02	33.57	3.62	26.67	100	3.72	33.38	4.82	26.55	150	0.21
149	4.20	33.80	2.26	26.83	150	4.19	33.80	2.25	26.84	124	0.28
					200	3.80	33.89	1.56	26.95	113	0.34
196	3.79	33.88	1.64	26.94	250	3.81	34.02	0.86	27.05	104	0.39
245	3.82	34.01	0.91	27.04	300	3.66	34.06	0.74	27.10	100	0.44
319	3.55	34.06	0.84	27.11							
PIONEER; August 8, 1958; 1810 GCT; 49°37'N, 171°40'W; wind, 210°, 10 kt; weather, fog; sea, moderate.											82
0	8.80	32.64	-	25.32	0	8.80	32.64		25.32	266	0.00
9	9.27	32.63	6.73	25.24	10	9.28	32.63	6.72	25.24	274	0.03
23	8.86	32.65	6.65	25.32	20	9.06	32.64	6.65	25.28	270	0.05
47	5.00	32.68	6.93	25.86	30	7.44	32.66	6.76	25.54	246	0.08
71	4.00	32.96	6.96	26.19	50	4.85	32.72	6.99	25.91	211	0.13
94	3.40	33.14	6.12	26.39	75	3.84	32.98	6.89	26.22	181	0.18
118	3.65	33.51	4.03	26.66	100	3.49	33.24	5.53	26.46	159	0.22
142	3.60	33.78	2.55	26.88	150	3.59	33.80	2.35	26.90	118	0.29
190	3.58	33.90	1.58	26.98	200	3.59	33.91	1.49	26.98	110	0.34
238	3.60	33.96	1.19	27.02	250	3.60	33.98	1.11	27.04	105	0.40
309	3.60	34.05	0.85	27.09	300	3.60	34.04	0.87	27.09	101	0.45
PIONEER; August 9, 1958; 0642, 0543 GCT; 49°00'N, 170°00'W; wind, 220°, 17 kt; weather, fog; sea, moderate.											83
0	9.20	32.72	-	25.33	0	9.20	32.72		25.33	266	0.00
10	9.47	32.72	6.68	25.28	10	9.47	32.72	6.68	25.28	270	0.03
25	8.98	32.73	6.61	25.37	20	9.27	32.72	6.62	25.31	267	0.05
49	5.89	32.84	-	25.88	30	8.20	32.75	6.73	25.50	250	0.08
74	4.45	32.93	7.06	26.12	50	5.81	32.84	7.04	25.89	212	0.13
98	3.98	33.04	6.66	26.25	75	4.43	32.93	7.07	26.12	191	0.18
122	3.68	33.44	5.02	26.60	100	3.95	33.08	6.56	26.29	175	0.22
146	3.64	33.76	2.50	26.86	150	3.63	33.77	2.42	26.87	120	0.30
195	3.60	33.87	1.72	26.95	200	3.60	33.88	1.67	26.96	112	0.35
244	3.62	33.94	1.30	27.00	250	3.62	33.95	1.27	27.01	108	0.41
293	3.61	34.03	1.03	27.08	300	3.60	34.04	1.00	27.09	101	0.46
					400	3.53	34.14	0.69	27.17	94	0.56
371	3.55	34.12	0.73	27.15	500	3.43	34.20	0.59	27.23	89	0.65
465	3.48	34.18	0.63	27.21	600	3.30	34.27	0.53	27.30	83	0.74
653	3.22	34.30	0.50	27.33	700	3.17	34.31	0.50	27.34	79	0.82
982	2.69	34.44	0.60	27.49	800	3.03	34.35	0.53	27.39	75	0.89
					1000	(2.65)	(34.45)	(0.62)	(27.50)	(65)	(1.03)
PIONEER; August 10, 1958; 0041 GCT; 49°29'N, 170°00'W; wind, 220°, 13 kt; weather, fog; sea, slight.											84
0	9.30	32.58	-	25.20	0	9.30	32.58		25.20	278	0.00
10	9.62	32.59	6.63	25.16	10	9.62	32.59	6.63	25.16	282	0.03
25	8.90	32.61	6.60	25.29	20	9.28	32.59	6.57	25.21	277	0.06
50	5.00	32.89	7.13	26.03	30	7.85	32.68	6.75	25.50	250	0.08
75	4.47	32.94	7.08	26.12	50	5.00	32.89	7.13	26.03	200	0.13
100	4.00	33.00	6.76	26.22	75	4.47	32.94	7.08	26.12	190	0.18
110	3.68	33.19	5.73	26.40	100	4.00	33.00	6.76	26.22	181	0.22
141	3.84	33.73	2.62	26.82	150	3.76	33.75	2.49	26.84	123	0.30
191	3.55	33.85	1.90	26.94	200	3.54	33.87	1.78	26.96	112	0.36
244	3.65	33.96	1.19	27.02							

SBL

MV PIONEER

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
85	PIONEER; August 10, 1958; 0650, 0557 GCT; 50°00'N, 170°00'W; wind, 210°, 15 kt; weather, fog; sea, slight.										
0	9.20	32.60	-	25.23	0	9.20	32.60		25.23	275	0.00
10	9.75	32.60	6.70	25.14	10	9.75	32.60	6.70	25.14	283	0.03
25	9.22	32.61	6.85	25.24	20	9.58	32.59	6.83	25.16	282	0.06
49	4.89	32.88	6.53	26.03	30	8.03	32.67	6.80	25.46	253	0.08
74	4.15	33.05	6.00	26.24	50	4.84	32.88	6.54	26.04	199	0.13
98	4.20	33.38	4.17	26.50	75	4.15	33.06	5.92	26.25	178	0.18
123	4.27	33.73	2.22	26.77	100	4.21	33.42	3.96	26.53	152	0.22
147	4.23	33.87	1.56	26.89	150	4.22	33.88	1.50	26.90	118	0.28
197	4.08	33.96	0.78	26.97	200	4.07	33.97	0.76	26.98	110	0.34
246	3.96	34.04	0.52	27.05	250	3.96	34.04	0.50	27.05	104	0.39
320	3.88	34.08	0.45	27.09	300	3.93	34.07	0.44	27.08	102	0.45
					400	3.52	34.16	0.66	27.19	92	0.54
388	3.54	34.15	0.67	27.18	500	3.38	34.21	0.59	27.24	87	0.63
485	3.40	34.20	0.60	27.23	600	3.26	34.28	0.50	27.31	82	0.72
679	3.15	34.33	0.47	27.36	700	3.12	34.34	0.47	27.37	76	0.80
1020	2.62	34.45	0.60	27.50	800	2.98	34.39	0.46	27.42	72	0.87
					1000	2.65	34.45	0.58	27.50	65	1.01
86	PIONEER; August 11, 1958; 0726, 0632 GCT; 51°00'N, 170°00'W; wind, 220°, 20 kt; weather, fog; sea, rough.										
0	9.50	32.44	-	25.06	0	9.50	32.44		25.06	291	0.00
10	9.98	32.44	6.35	24.98	10	9.98	32.44	6.35	24.98	299	0.03
25	9.78	32.48	6.53	25.04	20	9.92	32.45	6.48	25.00	297	0.06
50	4.90	32.90	6.45	26.05	30	8.49	32.58	6.55	25.33	266	0.09
74	3.86	33.11	5.95	26.32	50	4.90	32.90	6.45	26.05	198	0.13
99	4.00	33.38	4.54	26.52	75	3.87	33.12	5.89	26.33	171	0.18
124	3.90	33.62	3.16	26.72	100	4.00	33.39	4.47	26.53	152	0.22
148	3.82	33.77	2.51	26.85	150	3.83	33.78	2.43	26.86	122	0.29
198	4.00	33.94	1.12	26.97	200	4.00	33.94	1.10	26.97	112	0.34
247	3.95	34.01	0.72	27.03	250	3.93	34.01	0.72	27.03	106	0.40
296	3.75	34.07	0.68	27.09	300	3.75	34.07	0.67	27.09	100	0.45
					400	3.67	34.16	0.45	27.17	93	0.55
393	3.68	34.15	0.45	27.16	500	3.50	34.23	0.41	27.25	87	0.64
490	3.52	34.22	0.41	27.24	600	3.33	34.29	0.40	27.31	82	0.72
687	3.18	34.33	0.40	27.36	700	3.16	34.34	0.40	27.37	77	0.80
1031	2.63	34.43	0.56	27.49	800	2.99	34.38	0.43	27.41	73	0.88
					1000	2.68	34.43	0.54	27.48	67	1.02
87	PIONEER; August 13, 1958; 0123, 0025 GCT; 52°00'N, 170°00'W; wind, 260°, 25 kt; weather, sky obscured; sea, rough.										
0	9.20	32.17	-	24.90	0	9.20	32.17		24.90	307	0.00
10	9.80	32.17	6.72	24.80	10	9.80	32.17	6.72	24.80	316	0.03
24	9.40	32.21	6.74	24.90	20	9.62	32.18	6.74	24.84	313	0.06
49	6.02	32.84	6.66	25.87	30	8.40	32.41	6.74	25.21	278	0.09
73	4.74	32.91	6.44	26.07	50	5.95	32.84	6.68	25.88	214	0.14
98	4.25	33.10	4.82	26.27	75	4.69	32.91	6.33	26.08	195	0.19
122	4.05	33.58	2.77	26.67	100	4.22	33.15	4.60	26.32	172	0.24
146	4.08	33.78	1.80	26.83	150	4.07	33.80	1.68	26.85	122	0.31
195	3.98	33.95	0.67	26.98	200	3.98	33.96	0.65	26.98	110	0.37
244	3.98	34.00	0.50	27.02	250	3.97	34.01	0.52	27.02	106	0.42
293	3.91	34.05	0.55	27.06	300	3.91	34.06	0.55	27.07	102	0.48
					400	3.82	34.14	0.54	27.14	96	0.58
394	3.83	34.14	0.55	27.14	500	3.62	34.19	0.44	27.20	91	0.67
492	3.63	34.19	0.44	27.20	600	3.44	34.25	0.40	27.27	86	0.76
690	3.28	34.30	0.39	27.32	700	3.26	34.30	0.39	27.32	81	0.84
1035	2.70	34.42	0.54	27.47	800	3.09	34.35	0.40	27.38	76	0.92
					1000	2.76	34.41	0.52	27.46	69	1.06

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m
PIONEER; August 14, 1958; 0040 GCT; 52°42'N, 166°46'W; wind, 270°, 26 kt; weather, cloudy; sea, rough.											88
0	10.20	32.18	-	24.74	0	10.20	32.18		24.74	321	0.00
10	10.82	32.15	6.56	24.61	10	10.82	32.15	6.56	24.61	334	0.03
24	10.73	32.17	6.38	24.64	20	10.82	32.16	6.41	24.62	333	0.07
49	6.21	32.82	6.72	25.83	30	10.00	32.22	6.41	24.81	316	0.10
73	4.66	32.95	6.28	26.11	50	6.13	32.82	6.73	25.84	218	0.15
98	4.08	33.31	4.39	26.46	75	4.59	32.98	6.15	26.14	189	0.20
122	4.08	33.69	2.14	26.76	100	4.08	33.35	4.16	26.49	156	0.24
146	4.08	33.87	1.13	26.90	150	4.07	33.88	1.06	26.91	116	0.31
195	4.01	33.96	0.56	26.98	200	4.00	33.97	0.54	26.99	109	0.37
243	3.95	34.04	0.39	27.05	250	3.94	34.05	0.38	27.06	103	0.42
316	3.85	34.10	0.46	27.11	300	3.87	34.09	0.41	27.10	100	0.47
PIONEER; August 14, 1958; 0721, 0623 GCT; 52°51'N, 166°00'W; wind, 270°, 28 kt; weather, partly cloudy; sea, rough.											89
0	9.90	32.12	-	24.74	0	9.90	32.12		24.74	321	0.00
10	10.68	32.10	6.46	24.60	10	10.68	32.10	6.46	24.60	335	0.03
25	10.62	32.11	6.65	24.62	20	10.66	32.10	6.61	24.60	335	0.07
50	5.21	32.87	6.66	25.99	30	10.00	32.16	6.65	24.76	320	0.10
74	4.20	33.11	5.47	26.29	50	5.21	32.87	6.66	25.99	203	0.15
99	4.08	33.41	3.98	26.54	75	4.19	33.12	5.42	26.30	174	0.20
123	4.08	33.73	2.02	26.79	100	4.08	33.43	3.88	26.55	150	0.24
148	4.08	33.88	0.97	26.91	150	4.07	33.89	0.94	26.92	116	0.30
197	3.98	33.99	0.44	27.01	200	3.98	33.99	0.43	27.01	108	0.36
246	3.94	34.05	0.36	27.06	250	3.94	34.05	0.36	27.06	103	0.41
295	3.88	34.08	0.37	27.09	300	3.87	34.08	0.37	27.09	101	0.46
					400	3.69	34.15	0.43	27.16	94	0.56
388	3.72	34.14	0.39	27.15	500	3.47	34.24	0.53	27.26	86	0.65
485	3.49	34.23	0.55	27.25	600	3.31	34.29	0.40	27.31	82	0.74
678	3.18	34.32	0.35	27.35	700	3.14	34.33	0.34	27.36	77	0.82
1018	2.63	34.44	0.62	27.49	800	2.98	34.37	0.35	27.41	73	0.89
					1000	2.66	34.43	0.58	27.48	67	1.03
PIONEER; August 16, 1958; 0754 GCT; 53°31'N, 165°03'W; wind, 260°, 2 kt; weather, overcast; sea, smooth.											90
0	8.40	31.92	-	24.82	0	8.40	31.92		24.82	314	0.00
10	8.89	31.94	6.82	24.76	10	8.89	31.94	6.82	24.76	319	0.03
25	8.67	31.97	6.50	24.82	20	8.87	31.95	6.63	24.78	318	0.06
50	5.82	32.29	5.53	25.46	30	7.87	32.03	6.18	24.99	298	0.10
75	5.82	32.70	6.13	25.78	50	5.82	32.29	5.53	25.46	254	0.15
99	5.14	33.01	4.98	26.11	75	5.82	32.70	6.13	25.78	223	0.21
124	4.95	33.28	3.99	26.34	100	5.13	33.02	4.94	26.12	192	0.26
149	4.81	33.54	3.12	26.56	150	4.81	33.55	3.09	26.57	149	0.35
198	4.61	33.85	1.88	26.83	200	4.60	33.85	1.86	26.83	125	0.42
247	4.45	33.91	1.41	26.89	250	4.44	33.91	1.39	26.90	119	0.48
321	4.19	34.00	0.91	26.99	300	4.27	33.97	1.03	26.96	113	0.53

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m
91	PIONEER; August 19, 1958; 0302, 0214 GCT; 54°07'N, 160°00'W; wind, 190°, 6 kt; weather, sky obscured; sea, smooth.										
0	10.90	32.25	-	24.68	0	10.90	32.25		24.68	328	0.00
10	11.44	32.23	6.25	24.56	10	11.44	32.23	6.25	24.56	338	0.03
25	10.76	32.29	6.23	24.73	20	11.17	32.25	6.23	24.63	332	0.07
49	6.18	32.69	6.36	25.73	30	9.53	32.39	6.28	25.02	296	0.10
74	4.94	32.84	6.17	25.99	50	6.11	32.69	6.37	25.74	227	0.15
98	4.65	33.13	5.23	26.26	75	4.92	32.85	6.14	26.00	202	0.20
123	4.82	33.46	3.74	26.50	100	4.68	33.16	5.10	26.28	176	0.25
147	4.52	33.73	2.56	26.74	150	4.52	33.74	2.49	26.75	132	0.33
196	4.41	33.90	1.61	26.89	200	4.39	33.90	1.58	26.89	119	0.39
245	4.22	33.96	1.24	26.96	250	4.20	33.97	1.20	26.97	112	0.45
294	4.06	34.05	-	27.05	300	4.04	34.05	0.85	27.05	105	0.50
					400	3.84	34.12	0.47	27.13	98	0.60
387	3.85	34.11	0.48	27.12	500	3.70	34.18	0.43	27.19	93	0.70
483	3.74	34.17	0.44	27.17	600	3.49	34.25	0.39	27.26	86	0.79
677	3.34	34.29	0.38	27.31	700	3.30	34.30	0.38	27.32	81	0.87
1015	2.76	34.41	0.45	27.46	800	3.11	34.35	0.38	27.38	76	0.95
					1000	2.78	34.41	0.44	27.46	70	1.10
92	PIONEER; August 19, 1958; 2304 GCT; 53°48'N, 160°00'W; wind, 140°, 10 kt; weather, intermittent slight drizzle; sea, slight.										
0	11.00	32.29	-	24.69	0	11.00	32.29		24.69	326	0.00
10	11.58	32.28	6.26	24.58	10	11.58	32.28	6.26	24.58	337	0.03
24	11.16	32.32	6.24	24.68	20	11.47	32.29	6.22	24.61	335	0.07
49	5.78	32.83	6.78	25.89	30	9.51	32.47	6.48	25.08	290	0.10
73	4.32	32.99	6.07	26.18	50	5.70	32.83	6.78	25.90	212	0.15
97	3.95	33.40	3.68	26.54	75	4.27	33.03	5.86	26.22	182	0.20
121	4.02	33.75	1.70	26.81	100	3.96	33.46	3.37	26.59	146	0.24
145	4.06	33.89	0.83	26.92	150	4.05	33.90	0.77	26.93	115	0.30
194	4.00	33.98	0.46	27.00	200	4.00	33.99	0.45	27.01	108	0.36
243	3.95	34.04	0.40	27.05	250	3.94	34.05	0.40	27.06	103	0.41
316	3.82	34.12	0.39	27.13	300	3.85	34.10	0.39	27.11	99	0.46
93	PIONEER; August 20, 1958; 0311, 0221 GCT; 53°30'N, 160°00'W; wind, 140°, 2 kt; weather, sky obscured; sea, smooth.										
0	11.10	32.56	-	24.88	0	11.10	32.56		24.88	308	0.00
10	11.40	32.54	6.54	24.81	10	11.40	32.54	6.54	24.81	315	0.03
25	10.63	32.65	6.17	25.03	20	11.07	32.61	6.23	24.93	304	0.06
50	5.60	32.83	6.82	25.91	30	9.31	32.69	6.40	25.28	270	0.09
75	4.45	32.93	6.24	26.12	50	5.60	32.83	6.82	25.91	211	0.14
99	3.98	33.48	3.15	26.60	75	4.45	32.93	6.24	26.12	191	0.19
124	4.08	33.80	1.41	26.85	100	3.99	33.50	3.06	26.62	144	0.23
148	4.06	33.93	0.65	26.95	150	4.05	33.93	0.63	26.95	112	0.30
197	3.95	34.02	0.34	27.03	200	3.95	34.02	0.34	27.03	105	0.35
246	3.91	34.07	0.32	27.08	250	3.90	34.07	0.32	27.08	101	0.40
295	3.81	34.12	0.31	27.13	300	3.80	34.12	0.31	27.13	97	0.45
					400	3.64	34.17	0.36	27.18	92	0.55
393	3.65	34.17	0.36	27.18	500	3.46	34.24	0.36	27.26	86	0.64
491	3.47	34.23	0.36	27.25	600	3.30	34.29	0.37	27.31	81	0.72
687	3.16	34.33	0.38	27.36	700	3.14	34.34	0.38	27.37	77	0.80
1031	2.60	34.44	0.52	27.50	800	2.98	34.38	0.41	27.41	73	0.87
					1000	2.65	34.43	0.49	27.48	67	1.01

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m

94

PIONEER; August 21, 1958; 0029 GCT; 52°50'N, 160°00'W; wind, 020°, 18 kt; weather, moderate; rain; sea, rough.

0	10.50	32.59	-	25.01	0	10.50	32.59		25.01	296	0.00
10	11.00	32.59	6.29	24.92	10	11.00	32.59	6.29	24.92	304	0.03
25	10.98	32.60	6.26	24.93	20	10.99	32.59	6.24	24.92	304	0.06
49	6.37	32.79	6.78	25.78	30	10.90	32.64	6.46	24.98	299	0.09
74	4.45	32.96	6.12	26.14	50	6.27	32.79	6.79	25.80	222	0.14
98	3.98	33.41	3.63	26.55	75	4.42	32.98	6.00	26.16	187	0.19
122	4.16	33.79	1.65	26.83	100	4.00	33.45	3.40	26.58	148	0.24
146	4.15	33.88	1.14	26.90	150	4.14	33.89	1.08	26.91	116	0.30
195	4.02	33.97	0.53	26.99	200	4.02	33.98	0.50	27.00	109	0.36
244	3.98	34.04	0.35	27.05	250	3.97	34.05	0.34	27.06	104	0.41
317	3.85	34.11	0.37	27.12	300	3.89	34.10	0.34	27.10	99	0.46

95

PIONEER; August 21, 1958; 0640 GCT; 52°10'N, 160°00'W; wind, 290°, 20 kt; weather, intermittent slight drizzle; sea, rough.

0	10.00	32.63	-	25.12	0	10.00	32.63		25.12	285	0.00
8	10.46	32.63	6.33	25.05	10	10.57	32.63	6.32	25.03	294	0.03
22	10.23	32.68	6.26	25.13	20	10.41	32.67	6.26	25.09	289	0.06
45	4.65	32.91	6.32	26.08	30	7.71	32.75	6.46	25.57	243	0.08
67	4.09	33.20	4.84	26.37	50	4.47	32.97	6.00	26.15	188	0.13
90	4.10	33.53	3.02	26.63	75	4.09	33.32	4.16	26.46	158	0.17
113	4.16	33.77	1.71	26.81	100	4.14	33.65	2.36	26.72	134	0.21
136	4.14	33.87	1.13	26.90	150	4.12	33.91	0.94	26.93	115	0.27
181	4.08	33.98	0.62	26.99	200	4.05	34.00	0.52	27.01	108	0.33
225	4.00	34.03	0.43	27.04	250	3.94	34.06	0.40	27.07	102	0.38
293	3.83	34.11	0.39	27.12	300	(3.81)	(34.12)	(0.39)	(27.13)	(97)	(0.43)

96

PIONEER; August 22, 1958; 0633, 0653 GCT; 51°54'N, 157°40'W; wind, 180°, 10 kt; weather, overcast; sea, moderate.

0	9.50	32.66	-	25.23	0	9.50	32.66		25.23	275	0.00
9	10.02	32.66	6.35	25.15	10	10.03	32.66	6.35	25.14	283	0.03
23	9.95	32.65	6.50	25.15	20	10.00	32.65	6.44	25.14	284	0.06
47	5.21	32.83	7.11	25.96	30	8.17	32.71	6.61	25.47	252	0.08
70	4.26	32.93	6.65	26.14	50	5.05	32.82	7.21	25.97	205	0.13
94	3.97	33.53	3.17	26.64	75	4.18	33.08	5.75	26.27	177	0.18
117	3.97	33.78	1.92	26.84	100	3.98	33.61	2.78	26.71	135	0.22
140	3.90	33.87	1.29	26.92	150	3.90	33.89	1.06	26.94	114	0.28
187	3.90	33.96	0.50	26.99	200	3.90	33.98	0.45	27.01	108	0.33
234	3.88	34.02	0.36	27.04	250	3.86	34.04	0.34	27.06	103	0.39
					300	3.75	34.09	0.34	27.11	99	0.44
305	3.74	34.10	0.35	27.12							

97

PIONEER; August 22, 1958; 1818, 1850 GCT; 51°41'N, 155°30'W; wind, 090°, 26 kt; weather, moderate rain; sea, rough.

0	9.40	32.71	-	25.29	0	9.40	32.71		25.29	270	0.00
9	9.97	32.71	6.33	25.19	10	9.98	32.71	6.33	25.19	279	0.03
23	9.93	32.72	6.38	25.21	20	9.96	32.71	6.35	25.19	279	0.06
45	5.45	32.84	7.11	25.94	30	9.70	32.76	6.74	25.28	271	0.08
66	4.78	32.90	6.75	26.06	50	5.29	32.82	7.18	25.94	208	0.13
88	4.06	33.35	4.57	26.49	75	4.43	33.10	5.78	26.25	178	0.18
					100	3.91	33.54	3.60	26.66	140	0.22
112	3.80	33.68	2.92	26.78	150	3.65	33.81	2.21	26.90	118	0.28
135	3.68	33.78	2.45	26.87	200	3.64	33.90	1.43	26.97	111	0.34
180	3.62	33.86	1.75	26.94	250	3.65	33.98	0.94	27.03	106	0.39
225	3.65	33.94	1.13	27.00	300	(3.63)	(34.05)	(0.75)	(27.09)	(100)	(0.44)
270	3.64	34.01	0.83	27.06							

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ cl/ton	ΔD dyn m
98	PIONEER; August 24, 1958; 1945 GCT; 50°26'N, 147°25'W; wind, 230°, 14 kt; weather, partly cloudy; sea, moderate.										
0	11.30	32.54		24.83	0	11.30	32.54		24.83	313	0.00
10	11.76	32.54		24.75	10	11.76	32.54		24.75	321	0.03
25	11.76	32.53		24.74	20	11.76	32.53		24.74	322	0.06
49	6.93	32.78		25.70	30	11.76	32.60		24.79	317	0.10
74	5.82	32.82		25.88	50	6.87	32.78		25.71	230	0.15
98	5.34	32.83		25.94	75	5.81	32.81		25.87	215	0.21
122	4.55	33.28		26.38	100	5.27	32.87		25.98	204	0.26
146	3.92	33.60		26.70	150	3.89	33.62		26.72	134	0.34
195	3.64	33.77		26.87	200	3.64	33.78		26.87	120	0.41
294	3.65	33.92		26.98	250	3.65	33.86		26.94	114	0.47
517	3.54	34.17		27.19	300	3.65	33.93		26.99	110	0.52
					400	3.62	34.05		27.09	101	0.63
					500	3.55	34.16		27.19	93	0.72
99	PIONEER; August 25, 1958; 0616, 0527 GCT; 49°43'N, 146°10'W; wind, 260°, 6 kt; weather, cloudy; sea, slight.										
0	11.80	32.65		24.82	0	11.80	32.65		24.82	313	0.00
10	12.20	32.64		24.74	10	12.20	32.64		24.74	322	0.03
25	12.18	32.65		24.75	20	12.19	32.64		24.74	322	0.06
50	7.55	32.97		25.77	30	12.15	32.74		24.83	314	0.10
75	6.45	33.01		25.95	50	7.55	32.97		25.77	224	0.15
100	5.76	33.03		26.05	75	6.45	33.01		25.95	208	0.20
124	5.60	33.29		26.27	100	5.76	33.03		26.05	198	0.26
149	5.22	33.69		26.63	150	5.20	33.69		26.64	143	0.34
199	4.34	33.76		26.79	200	4.33	33.76		26.79	128	0.41
248	3.98	33.82		26.87	250	3.97	33.82		26.87	121	0.47
298	3.81	33.88		26.94	300	3.81	33.88		26.94	115	0.53
					400	3.74	34.02		27.06	105	0.64
390	3.75	34.01		27.05	500	3.61	34.12		27.15	96	0.74
488	3.62	34.11		27.14	600	3.49	34.20		27.22	90	0.83
683	3.38	34.25		27.27	700	3.36	34.26		27.28	85	0.92
1025	2.78	34.38		27.43	800	3.20	34.31		27.34	80	1.00
					1000	2.83	34.38		27.43	72	1.16
100	PIONEER; August 26, 1958; 0603 GCT; 50°24'N, 144°05'W; wind, 280°, 4 kt; weather, sky obscured; sea, smooth.										
0	12.60	32.62		24.65	0	12.60	32.62		24.65	330	0.00
10	13.12	32.60		24.53	10	13.12	32.60		24.53	341	0.03
25	12.96	32.62		24.58	20	13.04	32.61		24.56	339	0.07
50	7.28	32.81		25.68	30	12.85	32.67		24.64	332	0.10
75	5.90	32.86		25.90	50	7.28	32.81		25.68	233	0.16
100	5.49	32.94		26.01	75	5.90	32.86		25.90	212	0.21
125	5.24	33.25		26.28	100	5.49	32.94		26.01	202	0.27
149	4.80	33.67		26.67	150	4.78	33.67		26.67	140	0.35
198	4.14	33.77		26.82	200	4.13	33.77		26.82	126	0.42
297	3.72	33.88		26.95	250	3.89	33.83		26.89	119	0.48
521	3.60	34.14		27.16	300	3.71	33.88		26.95	114	0.54
					400	3.52	34.00		27.06	104	0.64
					500	3.56	34.11		27.14	97	0.74
101	PIONEER; August 26, 1958; 1756 GCT; 51°00'N, 142°00'W; wind, 320°, 5 kt; weather, sky obscured; sea, smooth.										
0	13.70	32.61		24.42	0	13.70	32.61		24.42	352	0.00
10	14.32	32.59		24.28	10	14.32	32.59		24.28	365	0.04
24	14.10	32.61		24.34	20	14.15	32.60		24.32	362	0.07
48	8.09	32.82		25.57	30	14.10	32.68		24.40	355	0.11
72	6.92	32.81		25.73	50	7.97	32.82		25.59	241	0.17
97	6.25	32.90		25.89	75	6.83	32.80		25.73	228	0.23
121	5.73	33.32		26.28	100	6.18	32.96		25.94	208	0.28
145	5.32	33.58		26.54	150	5.27	33.60		26.56	150	0.37
193	4.88	33.76		26.73	200	4.81	33.77		26.74	133	0.44
290	4.08	33.87		26.90	250	4.36	33.82		26.83	125	0.51
508	3.78	34.12		27.13	300	4.02	33.88		26.92	117	0.57
					400	3.67	34.00		27.05	105	0.68
					500	3.75	34.11		27.13	99	0.78

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m

102

PIONEER; August 27, 1958; 0627, 0516 GCT; 51°30'N, 140°00'W; wind, 320°, 2 kt; weather, partly cloudy; sea, smooth.

0	14.90	32.43	24.04	0	14.90	32.43	24.04	388	0.00
10	15.42	32.41	23.91	10	15.42	32.41	23.91	401	0.04
25	15.39	32.41	23.91	20	15.40	32.41	23.91	401	0.08
50	8.13	32.57	25.37	30	15.33	32.44	23.95	398	0.12
74	7.15	32.69	25.60	50	8.13	32.57	25.37	262	0.18
99	6.57	32.84	25.80	75	7.13	32.69	25.61	240	0.25
124	5.65	33.24	26.23	100	6.52	32.86	25.82	220	0.30
149	5.18	33.53	26.51	150	5.18	33.54	26.52	154	0.40
198	4.96	33.77	26.73	200	4.95	33.77	26.73	134	0.47
248	4.67	33.87	26.84	250	4.66	33.87	26.84	124	0.54
298	4.42	33.93	26.91	300	4.41	33.93	26.91	118	0.60
				400	4.17	34.02	27.01	109	0.71
391	4.18	34.02	27.01	500	4.02	34.09	27.08	103	0.81
489	4.04	34.08	27.07	600	3.84	34.18	27.17	95	0.91
684	3.68	34.24	27.24	700	3.65	34.25	27.25	89	1.00
1026	2.90	34.36	27.41	800	3.44	34.30	27.31	84	1.09
				1000	2.97	34.36	27.40	75	1.25

103

PIONEER; August 29, 1958; 2133 GCT; 49°00'N, 130°40'W; wind, 300°, 14 kt; weather, cloudy; sea, rough.

0	17.20	32.31	23.43	0	17.20	32.31	23.43	447	0.00
10	17.70	32.29	23.29	10	17.70	32.29	23.29	460	0.04
25	17.67	32.30	23.31	20	17.69	32.29	23.30	460	0.09
50	12.24	32.44	24.58	30	17.63	32.34	23.35	455	0.14
74	9.06	32.43	25.12	50	12.24	32.44	24.58	338	0.22
98	8.04	32.64	25.44	75	9.01	32.44	25.14	285	0.29
123	7.14	32.98	25.83	100	7.94	32.67	25.48	253	0.36
147	6.94	33.30	26.11	150	6.91	33.33	26.14	190	0.47
196	6.44	33.74	26.52	200	6.41	33.75	26.54	154	0.56
294	5.72	33.88	26.72	250	6.03	33.82	26.64	144	0.63
515	4.38	34.04	27.01	300	5.68	33.89	26.74	135	0.70
				400	5.03	33.98	26.89	122	0.83
				500	4.46	34.04	27.00	112	0.95

104

PIONEER; August 30, 1958; 0625 GCT; 48°52'N, 129°10'W; wind, 240°, 14 kt; weather, overcast; sea, moderate.

0	16.90	32.17	23.39	0	16.90	32.17	23.39	450	0.00
9	17.48	32.17	23.25	10	17.48	32.17	23.25	463	0.05
23	17.40	32.20	23.30	20	17.43	32.19	23.28	461	0.09
46	11.91	32.20	24.46	30	17.35	32.20	23.31	459	0.14
69	9.06	32.47	25.15	50	11.29	32.25	24.61	335	0.22
93	7.88	32.64	25.46	75	8.74	32.50	25.22	276	0.29
116	7.00	32.91	25.80	100	7.54	32.72	25.57	244	0.36
139	6.82	33.22	26.06	150	6.73	33.34	26.17	187	0.47
186	6.44	33.65	26.45	200	6.35	33.69	26.50	157	0.55
279	5.85	33.89	26.72	250	6.04	33.83	26.65	144	0.63
489	4.33	34.02	26.99	300	5.65	33.91	26.76	133	0.70
				400	4.84	34.00	26.92	118	0.82
				500	(4.28)	(34.02)	(27.00)	(111)	(0.94)

105

PIONEER; August 30, 1958; 1426 GCT; 48°45'N, 127°50'W; wind, 200°, 14 kt; weather, intermittent slight drizzle; sea, moderate.

0	15.90	32.10	23.56	0	15.90	32.10	23.56	434	0.00
10	16.24	32.08	23.47	10	16.24	32.08	23.47	442	0.04
25	12.94	32.19	24.25	20	13.89	32.15	24.03	389	0.09
50	10.44	32.35	24.83	30	12.38	32.22	24.38	356	0.12
74	8.72	32.57	25.28	50	10.44	32.35	24.83	314	0.19
98	7.64	32.92	25.72	75	8.66	32.58	25.30	269	0.26
123	7.18	33.37	26.13	100	7.59	32.96	25.75	226	0.32
147	7.20	33.69	26.38	150	7.18	33.71	26.40	166	0.42
196	6.82	33.91	26.61	200	6.78	33.91	26.61	146	0.50
295	5.96	33.97	26.77	250	6.32	33.94	26.70	139	0.57
518	4.80	34.11	27.01	300	5.92	33.97	26.77	132	0.64
				400	5.28	34.04	26.90	120	0.77
				500	4.85	34.10	27.00	112	0.88

OBSERVED		
Z	T	S
m	°C	‰

TORDENSKJOLD; April 29, 1958; 0441 GCT; 54°20'N, 165°06'W; sounding, 77 fm; wind, 090°, 18 kt; weather, overcast; sea, rough. 1

0	4.4	32.43
12	4.55	32.39
27	4.33	32.41
67	4.24	32.45
132	4.06	32.57

TORDENSKJOLD; April 29, 1958; 0613 GCT; 54°23'N, 165°02'W; sounding, 53 fm; wind, 070°, 12 kt; weather, cloudy; sea, moderate. 2

0	4.45	32.34
15	4.42	32.27
30	4.42	32.27
85	4.30	32.34

TORDENSKJOLD; April 29, 1958; 0743 GCT; 54°30'N, 164°55'W; sounding, 12 fm; wind, 090°, 5 kt; weather, partly cloudy; sea, smooth. 3

0	4.3	31.74
20	4.31	31.73

TORDENSKJOLD; April 29, 1958; 0745 GCT; 54°40'N, 165°10'W; sounding, 48 fm; wind, 340°, 10 kt; weather, partly cloudy; sea, slight. Z5

0	4.4	32.14
15	4.30	32.14
30	4.34	32.14
75	4.32	32.23

TORDENSKJOLD; April 30, 1958; 0025 GCT; 54°40'N, 164°48'W; sounding, 15 fm; wind, 360°, 16 kt; weather, partly cloudy; sea, rough. 4

0	4.4	31.89
10	4.37	31.91
20	4.25	31.96

TORDENSKJOLD; April 30, 1958; 0120 GCT; 54°44'N, 164°54'W; sounding, 35 fm; wind, 360°, 12 kt; weather, partly cloudy; sea, moderate. 5

0	4.4	32.10
12	4.27	32.12
27	4.20	32.16
57	4.19	32.29

TORDENSKJOLD; April 30, 1958; 0310 GCT; 54°53'N, 165°03'W; sounding, 50 fm; wind, 360°, 12 kt; weather, partly cloudy; sea, moderate. 6

0	4.2	31.96
20	4.24	32.16
31	4.26	32.23
86	4.22	32.41

TORDENSKJOLD; April 30, 1958; 0635 GCT; 55°02'N, 165°14'W; sounding, 62 fm; wind, 360°, 12 kt; weather, partly cloudy; sea, moderate. A5

0	4.20	31.74
5	4.25	31.83
20	4.10	32.20
50	4.17	32.34
95	4.20	32.54

TORDENSKJOLD; April 30, 1958; 1945 GCT; 54°48'N, 164°40'W; sounding, 35 fm; wind, 020°, 10 kt; weather, overcast; sea, smooth. A6

0	4.38	31.76
15	4.06	31.96
30	3.19	32.00
55	3.16	31.98

TORDENSKJOLD; May 1, 1958; 0210 GCT; 55°19'N, 164°02'W; sounding, 42 fm; wind, 020°, 12 kt; weather, sky obscured; sea, slight. B7

0	4.20	31.62
20	4.17	31.64
30	4.01	31.60
70	3.81	31.87

TORDENSKJOLD; May 1, 1958; 0350 GCT; 55°09'N, 163°50'W; sounding, 20 fm; wind, 360°, 8 kt; weather, sky obscured; sea, slight. 7

0	4.23	31.47
6	4.18	31.49
21	3.60	31.56
31	3.58	31.56

TORDENSKJOLD; May 1, 1958; 0455 GCT; 55°04'N, 163°47'W; sounding, 10 fm; wind, 360°, 2 kt; weather, sky obscured; sea, smooth. 8

0	4.58	31.18
5	4.43	31.20
10	4.25	31.26

	OBSERVED		
	Z	T	S
	m	°C	‰

9

TORDENSKJOLD; May 1, 1958; 0555 GCT; 55°06'N, 163°37'W; sounding, 15 fm; wind, calm; weather, sky obscured; sea, smooth.

0	4.13	31.65
10	3.57	31.62
20	3.48	31.69

10

TORDENSKJOLD; May 1, 1958; 0655 GCT; 55°06'N, 163°28'W; sounding, 10 fm; wind, calm; weather, missing; sea, smooth.

0	4.49	31.49
13	3.90	31.60

11

TORDENSKJOLD; May 1, 1958; 0755 GCT; 55°08'N, 163°20'W; sounding, 10 fm; wind, 360°, 5 kt; weather, missing; sea, smooth.

0	4.70	31.58
8	4.25	31.58
13	3.80	31.64

B8

TORDENSKJOLD; May 1, 1958; 1940 GCT; 55°20'N, 163°26'W; sounding, 30 fm; wind, 020°, 25 kt; weather, sky obscured; sea, slight.

0	4.20	31.51
19	3.77	31.56
49	3.08	31.80

C8

TORDENSKJOLD; May 2, 1958; 0220 GCT; 55°48'N, 163°20'W; sounding, 48 fm; wind, 050°, 15 kt; weather, sky obscured; sea, slight.

0	3.65	31.87
20	3.54	31.85
35	3.00	31.89
80	2.42	31.92

C9

TORDENSKJOLD; May 2, 1958; 1910 GCT; 55°39'N, 162°49'W; sounding, 27 fm; wind, 050°, 10 kt; weather, cloudy; sea, slight.

0	3.90	31.56
4	3.72	31.55
19	3.68	31.56
49	3.41	31.58

D9

TORDENSKJOLD; May 2, 1958; 2325 GCT; 55°59'N, 162°45'W; sounding, 44 fm; wind, 050°, 5 kt; weather, missing; sea, smooth.

0	4.10	31.80
15	3.49	31.83
30	2.80	31.87
70	2.78	31.87

D10

TORDENSKJOLD; May 3, 1958; 0425 GCT; 56°00'N, 162°08'W; sounding, 36 fm; wind, 360°, 5 kt; weather, cloudy; sea, slight.

0	4.25	31.35
14	3.59	31.35
29	3.14	31.73
59	2.96	31.82

D11

TORDENSKJOLD; May 3, 1958; 1930 GCT; 56°02'N, 161°38'W; sounding, 22 fm; wind, 320°, 10 kt; weather, light fog; sea, slight.

0	3.50	31.66
18	3.49	31.56
33	3.45	31.58

E11

TORDENSKJOLD; May 4, 1958; 0045 GCT; 56°20'N, 161°38'W; sounding, 35 fm; wind, 320°, 15 kt; weather, partly cloudy; sea, moderate.

0	4.21	31.60
14	3.35	31.78
29	2.65	31.93
59	2.60	31.95

E12

TORDENSKJOLD; May 4, 1958; 0450 GCT; 56°20'N, 161°00'W; sounding, 28 fm; wind, 320°, 20 kt; weather, cloudy; sea, slight.

0	4.65	31.15
5	4.65	31.13
20	3.00	31.63
40	2.90	31.64

F12

TORDENSKJOLD; May 4, 1958; 2025 GCT; 56°40'N, 161°00'W; sounding, 36 fm; wind, 020°, 10 kt; weather, sky obscured; sea, slight.

0	3.52	31.79
15	3.17	31.82
30	2.68	31.84
60	2.57	31.86

OBSERVED		
Z	T	S
m	°C	‰

TORDENSKJOLD; May 5, 1958; 0115 GCT; 56°39'N, 160°19'W; sounding, 33 fm; wind, 020°, 15 kt; weather, overcast; sea, slight.

0	3.60	31.62
30	2.94	31.67
49	2.57	31.71

TORDENSKJOLD; May 5, 1958; 1944 GCT; 56°40'N, 159°45'W; sounding, 21 fm; wind, 320°, 10 kt; weather, light fog; sea, slight.

0	2.79	31.45
15	2.71	31.47
31	2.62	31.50

TORDENSKJOLD; May 6, 1958; 0040 GCT; 56°58'N, 159°42'W; sounding, 30 fm; wind, 320°, 15 kt; weather, sky obscured; sea, slight.

0	2.65	31.58
19	2.52	31.62
49	2.50	31.69

TORDENSKJOLD; May 6, 1958; 1945 GCT; 57°20'N, 159°05'W; sounding, 29 fm; wind, 270°, 18 kt; weather, slight fall of snowflakes; sea, slight.

0	2.30	31.64
20	2.37	31.65
40	2.33	31.65

TORDENSKJOLD; May 7, 1958; 0515 GCT; 57°40'N, 159°40'W; sounding, 25 fm; wind, 270°, 20 kt; weather, slight fall of snowflakes; sea, slight.

0	2.15	31.82
20	2.20	31.81
40	2.18	31.80

TORDENSKJOLD; May 8, 1958; 0130 GCT; 58°01'N, 160°16'W; sounding, 25 fm; wind, 090°, 20 kt; weather, heavy fall of snowflakes; sea, moderate.

0	1.45	31.42
20	1.47	31.41
40	1.43	31.41

TORDENSKJOLD; May 8, 1958; 1640 GCT; 58°26'N, 161°02'W; sounding, 12 fm; wind, calm; weather, sky obscured; sea, smooth.

0	3.29	30.44
8	3.21	30.47
13	3.12	30.52

OBSERVED		
Z	T	S
m	°C	‰

F13

TORDENSKJOLD; May 5, 1958; 0410 GCT; 56°28'N, 160°02'W; sounding, 10 fm; wind, 360°, 12 kt; weather, sky obscured; sea, slight.

I2

0	3.48	-
3	3.42	31.16
13	3.42	31.16

F14

TORDENSKJOLD; May 5, 1958; 2110 GCT; 56°50'N, 159°46'W; sounding, 27 fm; wind, 320°, 10 kt; weather, light fog; sea, slight.

I3

0	2.60	31.56
20	2.60	31.58
40	2.60	31.59

G14

TORDENSKJOLD; May 6, 1958; 0440 GCT; 57°00'N, 159°08'W; sounding, 19 fm; wind, 320°, 15 kt; weather, sky obscured; sea, slight.

G15

0	3.05	31.34
10	2.92	31.45
20	2.83	31.50

HI5

TORDENSKJOLD; May 7, 1958; 0030 GCT; 57°21'N, 159°38'W; sounding, 30 fm; wind, 270°, 15 kt; weather, sky obscured; sea, slight.

HI4

0	2.37	31.86
19	2.29	31.82
49	2.27	31.83

I14

TORDENSKJOLD; May 7, 1958; 1945 GCT; 57°40'N, 160°23'W; sounding, 30 fm; wind, 090°, 15 kt; weather, heavy fall of snowflakes; sea, moderate.

I13

0	1.90	31.85
19	1.95	31.85
49	1.93	31.85

J13

TORDENSKJOLD; May 8, 1958; 0245 GCT; 58°01'N, 160°51'W; sounding, 23 fm; wind, 110°, 20 kt; weather, intermittent heavy fall of snowflakes; sea, slight.

J12

0	2.55	31.56
16	1.54	31.56
31	1.51	31.56

I4

TORDENSKJOLD; May 8, 1958; 1755 GCT; 58°32'N, 161°16'W; sounding, 5 fm; wind, 230°, 5 kt; weather, slight fall of snowflakes; sea, smooth.

I5

0	3.65	29.80
9	3.62	29.81

	OBSERVED		
	Z	T	S
	m	°C	‰
I6	TORDENSKJOLD; May 8, 1958; 1805 GCT; 58°37'N, 161°28'W; sounding, 5 fm; wind, 250°, 5 kt;		
K11	weather, heavy fall of snowflakes; sea, smooth.		
	0	3.47	29.98
	10	3.46	30.02
I7	TORDENSKJOLD; May 10, 1958; 0150 GCT; 58°35'N, 161°39'W; sounding, 5 fm; wind, 320°, 30 kt;		
J11	weather, sky obscured; sea, smooth.		
	0	1.7	30.48
	5	2.13	30.48
I11	TORDENSKJOLD; May 10, 1958; 2315 GCT; 57°39'N, 161°35'W; sounding, 25 fm; wind, 290°, 7 kt;		
I12	weather, partly cloudy; sea, smooth.		
	0	2.72	32.19
	20	2.44	32.18
	40	2.42	32.19
H13	TORDENSKJOLD; May 11, 1958; 0755 GCT; 57°20'N, 160°19'W; sounding, 30 fm; wind, 050°, 12 kt;		
G13	weather, partly cloudy; sea, smooth.		
	0	2.69	32.03
	19	2.51	32.03
	49	2.48	32.03
F11	TORDENSKJOLD; May 13, 1958; 0028 GCT; 56°39'N, 161°38'W; sounding, 44 fm; wind, 340°, 6 kt;		
F10	weather, partly cloudy; sea, smooth.		
	0	3.50	31.89
	15	3.15	31.88
	30	3.00	31.88
	70	2.50	32.01
E10	TORDENSKJOLD; May 13, 1958; 1930 GCT; 56°20'N, 162°10'W; sounding, 40 fm; wind, 320°, 5 kt;		
E9	weather, clear; sea, smooth.		
	0	3.25	32.01
	13	2.97	32.01
	28	2.90	31.99
	68	2.90	32.00

	OBSERVED		
	Z	T	S
	m	°C	‰
	TORDENSKJOLD; May 8, 1958; 2325 GCT; 58°20'N, 161°28'W; sounding, 21 fm; wind, 320°, 28 kt;		
	weather, sky obscured; sea, moderate.		
	0	1.37	31.51
	16	-	31.50
	31	1.30	31.50
	TORDENSKJOLD; May 10, 1958; 1900 GCT; 57°58'N, 161°30'W; sounding, 27 fm; wind, 290°, 15 kt;		
	weather, partly cloudy; sea, slight.		
	0	1.47	31.69
	20	1.49	31.69
	40	1.76	31.81
	TORDENSKJOLD; May 11, 1958; 0335 GCT; 57°36'N, 160°52'W; sounding, 30 fm; wind, calm;		
	weather, partly cloudy; sea, calm.		
	0	3.12	32.07
	19	2.36	32.06
	49	2.33	32.05
	TORDENSKJOLD; May 11, 1958; 1730 GCT; 57°01'N, 160°25'W; sounding, 35 fm; wind, 050°, 25 kt;		
	weather, sky obscured; sea, slight.		
	0	2.64	32.00
	29	2.60	32.00
	59	2.60	32.00
	TORDENSKJOLD; May 13, 1958; 0450 GCT; 56°39'N, 162°10'W; sounding, 41 fm; wind, 320°, 10 kt;		
	weather, clear; sea, smooth.		
	0	3.21	32.08
	13	2.57	32.09
	28	2.55	32.10
	68	2.56	32.10
	TORDENSKJOLD; May 13, 1958; 2355 GCT; 56°18'N, 162°50'W; sounding, 44 fm; wind, 360°, 5 kt;		
	weather, cloudy; sea, smooth.		
	0	4.20	31.88
	15	3.46	31.88
	30	3.25	31.88
	70	2.56	31.96

OBSERVED		
Z	T	S
m	°C	‰

A4

TORDENSKJOLD; May 19, 1958; 2125 GCT; 55°01'N, 165°51'W; sounding, 73 fm; wind, 050°, 6 kt; weather, sky obscured; sea, smooth.

0	4.61	32.31
35	4.50	32.34
70	4.39	32.50
130	3.84	32.83

B4

TORDENSKJOLD; May 20, 1958; 0145 GCT; 55°20'N, 165°46'W; sounding, 68 fm; wind, 050°, 6 kt; weather, sky obscured; sea, smooth.

0	5.19	32.24
30	4.50	32.23
65	4.48	32.26
115	3.90	32.86

B5

TORDENSKJOLD; May 20, 1958; 0609 GCT; 55°20'N, 165°13'W; sounding, 60 fm; wind, 140°, 15 kt; weather, sky obscured; sea, slight.

0	4.90	32.20
30	4.50	32.22
60	4.50	32.25
115	4.17	32.59

B6

TORDENSKJOLD; May 20, 1958; 2012 GCT; 55°21'N, 164°36'W; sounding, 57 fm; wind, 140°, 20 kt; weather, overcast; sea, slight.

0	4.45	31.96
25	4.35	31.97
55	4.34	31.96
95	3.72	32.46

C6

TORDENSKJOLD; May 21, 1958; 0113 GCT; 55°41'N, 164°37'W; sounding, 55 fm; wind, 090°, 15 kt; weather, sky obscured; sea, slight.

0	4.32	31.93
25	4.08	31.93
55	3.81	31.94
95	3.43	32.32

C7

TORDENSKJOLD; May 23, 1958; 1822 GCT; 55°42'N, 164°00'W; sounding, 52 fm; wind, calm; weather, partly cloudy; sea, smooth.

0	4.48	31.88
15	4.20	31.89
30	4.08	31.89
85	3.17	31.98

D7

TORDENSKJOLD; May 23, 1958; 2230 GCT; 56°00'N, 164°00'W; sounding, 48 fm; wind, 070°, 10 kt; weather, partly cloudy; sea, slight.

0	4.30	31.96
20	3.82	31.96
35	3.71	31.96
80	1.84	32.08

D8

TORDENSKJOLD; May 24, 1958; 0245 GCT; 56°00'N, 163°24'W; sounding, 48 fm; wind, 070°, 20 kt; weather, sky obscured; sea, moderate.

0	4.15	31.90
20	4.04	31.91
35	3.79	31.93
80	2.68	32.02

GI2

TORDENSKJOLD; May 26, 1958; 2318 GCT; 57°00'N, 160°57'W; sounding, 33 fm; wind, 180°, 6 kt; weather, overcast; sea, slight.

0	3.69	32.03
20	3.43	32.03
50	3.22	32.03

HI2

TORDENSKJOLD; May 27, 1958; 0345 GCT; 57°20'N, 160°58'W; sounding, 32 fm; wind, 180°, 5 kt; weather, overcast; sea, smooth.

0	3.47	32.12
20	3.29	32.11
50	3.23	32.11

HI1

TORDENSKJOLD; May 27, 1958; 0805 GCT; 57°20'N, 161°32'W; sounding, 27 fm; wind, 180°, 8 kt; weather, overcast; sea, smooth.

0	3.69	32.17
20	3.60	32.16
40	3.56	32.16

GI1

TORDENSKJOLD; May 27, 1958; 2105 GCT; 57°01'N, 161°35'W; sounding, 35 fm; wind, 140°, 12 kt; weather, sky obscured; sea, slight.

0	3.69	32.03
30	3.59	32.03
60	3.30	32.06

	OBSERVED		
	Z	T	S
	m	°C	‰

	OBSERVED		
	Z	T	S
	m	°C	‰

G10

TORDENSKJOLD; May 28, 1958; 0022 GCT; 57°01'N, 162°10'W; sounding, 33 fm; wind, 110°, 15 kt; weather, overcast; sea, slight.

Z	T	S
0	3.60	32.05
20	3.54	32.05
50	3.10	32.10

H10

TORDENSKJOLD; May 28, 1958; 0405 GCT; 57°19'N, 162°13'W; sounding, 25 fm; wind, 110°, 15 kt; weather, overcast; sea, slight.

Z	T	S
0	3.19	32.12
20	3.11	32.12
40	3.14	32.12

I10

TORDENSKJOLD; May 28, 1958; 1915 GCT; 57°40'N, 162°10'W; sounding, 25 fm; wind, 090°, 12 kt; weather, overcast; sea, slight.

Z	T	S
0	3.40	32.08
20	3.32	32.08
40	3.33	32.08

I9

TORDENSKJOLD; May 28, 1958; 2250 GCT; 57°40'N, 162°47'W; sounding, 23 fm; wind, 090°, 10 kt; weather, intermittent slight drizzle; sea, slight.

Z	T	S
0	3.20	32.09
20	3.09	32.09
35	3.11	32.09

H9

TORDENSKJOLD; May 29, 1958; 0422 GCT; 57°19'N, 162°48'W; sounding, 26 fm; wind, 090°, 10 kt; weather, overcast; sea, slight.

Z	T	S
0	3.40	32.17
20	3.28	32.16
40	3.27	32.17

G9

TORDENSKJOLD; May 29, 1958; 1903 GCT; 57°00'N, 162°47'W; sounding, 32 fm; wind, 090°, 8 kt; weather, intermittent slight drizzle; sea, smooth.

Z	T	S
0	3.80	31.99
20	3.68	32.01
50	2.78	32.16

F9

TORDENSKJOLD; May 29, 1958; 2317 GCT; 56°40'N, 162°48'W; sounding, 38 fm; wind, calm; weather, cloudy; sea, smooth.

Z	T	S
0	4.30	31.93
15	4.04	31.93
30	3.85	31.88
60	2.50	32.06

F8

TORDENSKJOLD; May 30, 1958; 0320 GCT; 56°39'N, 163°27'W; sounding, 40 fm; wind, 090°, 5 kt; weather, partly cloudy; sea, smooth.

Z	T	S
0	4.74	32.01
15	3.86	32.01
30	3.79	32.01
70	2.34	32.06

E8

TORDENSKJOLD; May 30, 1958; 0723 GCT; 56°20'N, 163°27'W; sounding, 46 fm; wind, 070°, 4 kt; weather, partly cloudy; sea, slight.

Z	T	S
0	5.10	31.94
17	4.18	31.94
32	4.09	31.94
77	2.47	32.03

E7

TORDENSKJOLD; May 30, 1958; 1935 GCT; 56°22'N, 164°00'W; sounding, 47 fm; wind, 090°, 8 kt; weather, partly cloudy; sea, slight.

Z	T	S
0	4.75	32.00
17	4.03	32.00
32	3.98	31.98
77	2.39	32.10

F7

TORDENSKJOLD; May 30, 1958; 2227 GCT; 56°40'N, 164°04'W; sounding, 41 fm; wind, 110°, 8 kt; weather, partly cloudy; sea, slight.

Z	T	S
0	4.60	31.98
13	4.32	31.98
28	3.58	32.01
68	2.80	32.09

G7

TORDENSKJOLD; May 31, 1958; 0250 GCT; 57°01'N, 163°54'W; sounding, 37 fm; wind, 090°, 5 kt; weather, cloudy; sea, slight.

Z	T	S
0	4.51	32.07
15	3.39	32.07
30	3.34	32.07
60	2.95	32.07

OBSERVED		
Z	T	S
m	°C	‰

TORDENSKJOLD; May 31, 1958; 0648 GCT; 57°02'N, 163°22'W; sounding, 35 fm; wind, 090°, 5 kt; weather, cloudy; sea, smooth.

0	4.69	31.98
14	3.86	31.94
29	3.64	31.97
59	2.42	32.06

TORDENSKJOLD; May 31, 1958; 2232 GCT; 57°42'N, 163°24'W; sounding, 23 fm; wind, calm; weather, partly cloudy; sea, smooth.

0	3.00	31.96
20	2.63	31.96
35	2.61	31.95

TORDENSKJOLD; June 1, 1958; 1836 GCT; 56°58'N, 164°36'W; sounding, 38 fm; wind, 090°, 10 kt; weather, cloudy; sea, slight.

0	3.89	32.06
15	3.42	32.05
30	2.51	32.02
60	2.53	32.02

TORDENSKJOLD; June 2, 1958; 0413 GCT; 56°19'N, 164°40'W; sounding, 46 fm; wind, 090°, 15 kt; weather, cloudy; sea, very rough.

0	5.01	31.98
20	4.89	31.98
35	4.18	31.97
80	2.26	32.07

TORDENSKJOLD; June 3, 1958; 0115 GCT; 56°39'N, 165°18'W; sounding, 42 fm; wind, 090°, 5 kt; weather, cloudy; sea, smooth.

0	4.11	31.98
15	3.46	31.98
30	2.44	32.01
70	1.91	32.03

TORDENSKJOLD; June 3, 1958; 2310 GCT; 56°02'N, 165°12'W; sounding, 53 fm; wind, 090°, 18 kt; weather, overcast; sea, slight.

0	5.51	32.05
16	5.46	32.05
31	-	32.03
86	3.34	32.01

OBSERVED		
Z	T	S
m	°C	‰

G8

TORDENSKJOLD; May 31, 1958; 1835 GCT; 57°21'N, 163°21'W; sounding, 28 fm; wind, 090°, 3 kt; weather, cloudy; sea, smooth.

H8

0	4.08	32.14
20	3.29	32.15
40	3.24	32.15

I8

TORDENSKJOLD; June 1, 1958; 0433 GCT; 57°13'N, 164°07'W; sounding, 35 fm; wind, 140°, 2 kt; weather, cloudy; sea, smooth.

H7

0	4.96	32.07
15	3.53	32.06
30	3.18	32.06
60	2.52	32.05

G6

TORDENSKJOLD; June 1, 1958; 2310 GCT; 56°41'N, 164°41'W; sounding, 42 fm; wind, 090°, 15 kt; weather, overcast; sea, slight.

F6

0	4.40	32.01
13	4.28	32.00
28	3.18	32.02
68	2.76	32.10

E6

TORDENSKJOLD; June 2, 1958; 2010 GCT; 56°20'N, 165°15'W; sounding, 47 fm; wind, 090°, 5 kt; weather, cloudy; sea, slight.

E5

0	4.74	32.00
20	4.50	31.99
35	2.12	31.98
80	2.06	31.98

F5

TORDENSKJOLD; June 3, 1958; 0628 GCT; 56°19'N, 165°52'W; sounding, 51 fm; wind, 090°, 10 kt; weather, partly cloudy; sea, slight.

E4

0	5.70	32.08
16	5.25	32.08
31	4.90	32.06
86	2.83	32.03

D5

TORDENSKJOLD; June 7, 1958; 2023 GCT; 55°22'N, 165°49'W; sounding, 65 fm; wind, 140°, 20 kt; weather, sky obscured; sea, slight.

B4

0	5.77	32.26
27	5.04	32.37
62	5.30	32.49
112	4.54	32.62

C4

TORDENSKJOLD; June 8, 1958; 0132 GCT; 55°40'N, 165°50'W; sounding, 65 fm; wind, 110°, 15 kt; weather, cloudy; sea, slight.

C5

OBSERVED		
Z	T	S
m	°C	‰
0	5.94	32.26
15	5.74	32.26
30	5.75	32.28
75	4.70	32.38
115	4.36	32.65

TORDENSKJOLD; June 9, 1958; 0700 GCT; 55°40'N, 165°12'W; sounding, 59 fm; wind, 090°, 15 kt; weather, sky obscured; sea, slight.

OBSERVED		
Z	T	S
m	°C	‰
0	5.90	32.09
15	5.84	32.07
30	5.48	32.11
60	5.08	32.16
100	4.08	32.46

C6

TORDENSKJOLD; June 10, 1958; 0002 GCT; 55°42'N, 164°33'W; sounding, 51 fm; wind, 180°, 10 kt; weather, sky obscured; sea, slight.

D6

OBSERVED		
Z	T	S
m	°C	‰
0	5.95	32.04
15	5.67	32.02
30	5.21	32.04
90	3.52	32.20

TORDENSKJOLD; June 10, 1958; 0438 GCT; 56°00'N, 164°35'W; sounding, 51 fm; wind, 140°, 15 kt; weather, sky obscured; sea, slight.

OBSERVED		
Z	T	S
m	°C	‰
0	5.73	31.97
15	5.68	31.93
30	5.41	31.97
90	2.51	32.04

D4

TORDENSKJOLD; June 12, 1958; 0241 GCT; 56°02'N, 165°48'W; sounding, 55 fm; wind, 090°, 15 kt; weather, cloudy; sea, slight.

D5

OBSERVED		
Z	T	S
m	°C	‰
0	5.83	32.10
15	5.71	32.08
30	5.67	32.10
60	5.34	32.25
95	3.49	32.24

TORDENSKJOLD; June 13, 1958; 0340 GCT; 55°59'N, 165°16'W; sounding, 53 fm; wind, 020°, 15 kt; weather, slight rain; sea, slight.

OBSERVED		
Z	T	S
m	°C	‰
0	5.90	32.09
15	5.86	32.10
30	5.85	32.10
60	4.26	32.17
95	3.58	32.22

E5

TORDENSKJOLD; June 13, 1958; 1936 GCT; 56°18'N, 165°12'W; sounding, 48 fm; wind, 270°, 10 kt; weather, sky obscured; sea, slight.

E6

OBSERVED		
Z	T	S
m	°C	‰
0	5.63	32.03
15	5.62	32.02
30	5.60	32.03
86	2.15	32.04

TORDENSKJOLD; June 14, 1958; 0008 GCT; 56°13'N, 164°39'W; sounding, 49 fm; wind, 270°, 15 kt; weather, cloudy; sea, slight.

OBSERVED		
Z	T	S
m	°C	‰
0	5.78	31.96
15	5.68	31.95
30	5.61	31.96
88	2.49	32.05

E7

TORDENSKJOLD; June 14, 1958; 0556 GCT; 56°20'N, 163°57'W; sounding, 46 fm; wind, 270°, 5 kt; weather, cloudy; sea, slight.

E8

OBSERVED		
Z	T	S
m	°C	‰
0	5.70	31.94
15	5.68	31.92
30	5.60	31.93
83	2.65	32.00

TORDENSKJOLD; June 14, 1958; 1938 GCT; 56°20'N, 163°22'W; sounding, 45 fm; wind, 230°, 5 kt; weather, cloudy; sea, smooth.

OBSERVED		
Z	T	S
m	°C	‰
0	5.38	31.94
15	5.33	31.92
30	5.30	31.93
81	2.67	32.03

F8

TORDENSKJOLD; June 15, 1958; 0139 GCT; 56°41'N, 163°24'W; sounding, 40 fm; wind, 200°, 5 kt; weather, fog, depositing rime; sea, smooth.

F7

OBSERVED		
Z	T	S
m	°C	‰
0	5.75	31.92
15	-	31.93
30	5.39	31.93
75	2.86	32.00

TORDENSKJOLD; June 15, 1958; 0613 GCT; 56°41'N, 164°00'W; sounding, 40 fm; wind, 230°, 5 kt; weather, sky obscured; sea, smooth.

OBSERVED		
Z	T	S
m	°C	‰
0	5.69	31.97
15	5.34	31.96
30	5.26	31.97
75	2.89	32.06

OBSERVED		
Z	T	S
m	°C	‰

TORDENSKJOLD; June 15, 1958; 1930 GCT; 56°42'N, 164°35'W; sounding, 39 fm; wind, 180°, 2 kt; weather, fog; sea, smooth.

0	5.34	31.98
15	5.04	31.99
30	4.82	31.99
69	2.94	32.09

TORDENSKJOLD; June 16, 1958; 0547 GCT; 57°00'N, 163°24'W; sounding, 35 fm; wind, calm; weather, cloudy; sea, calm.

0	6.51	31.97
15	6.53	31.97
30	4.19	32.00
65	2.91	32.02

TORDENSKJOLD; June 17, 1958; 0004 GCT; 57°18'N, 162°46'W; sounding, 26 fm; wind, calm; weather, cloudy; sea, calm.

0	6.80	32.00
15	5.30	32.05
30	4.12	32.09
46	4.08	32.11

TORDENSKJOLD; June 17, 1958; 1920 GCT; 57°41'N, 162°07'W; sounding, 25 fm; wind, 320°, 5 kt; weather, partly cloudy; sea, calm.

0	7.04	32.00
15	4.64	32.08
30	4.63	32.08
45	4.61	32.10

TORDENSKJOLD; June 18, 1958; 0333 GCT; 57°18'N, 161°32'W; sounding, 29 fm; wind, 050°, 8 kt; weather, cloudy; sea, calm.

0	7.20	32.11
15	5.36	32.14
30	4.28	32.14
53	4.24	32.15

TORDENSKJOLD; June 20, 1958; 0105 GCT; 56°00'N, 164°00'W; sounding, 49 fm; wind, 140°, 5 kt; weather, partly cloudy; sea, smooth.

0	6.60	31.94
15	6.09	31.93
30	6.02	31.93
90	2.84	32.01

OBSERVED		
Z	T	S
m	°C	‰

F6

TORDENSKJOLD; June 16, 1958; 0108 GCT; 57°00'N, 164°00'W; sounding, 36 fm; wind, calm; weather, cloudy; sea, smooth.

G7

0	6.39	32.00
15	5.47	31.98
30	5.04	31.98
63	3.04	32.07

G8

TORDENSKJOLD; June 16, 1958; 1955 GCT; 57°20'N, 163°21'W; sounding, 29 fm; wind, calm; weather, sky obscured; sea, calm.

H8

0	5.67	32.01
15	4.88	32.05
30	3.94	32.05
50	3.91	32.06

H9

TORDENSKJOLD; June 17, 1958; 0455 GCT; 57°38'N, 162°44'W; sounding, 23 fm; wind, calm; weather, partly cloudy; sea, calm.

I9

0	7.20	32.11
10	4.76	32.12
25	4.56	32.12
40	4.53	32.09

I10

TORDENSKJOLD; June 17, 1958; 2330 GCT; 57°37'N, 161°28'W; sounding, 29 fm; wind, 050°, 8 kt; weather, partly cloudy; sea, calm.

I11

0	6.66	32.02
15	4.45	32.04
30	4.43	32.05
53	4.40	32.06

H11

TORDENSKJOLD; June 19, 1958; 2100 GCT; 56°00'N, 163°28'W; sounding, 48 fm; wind, 140°, 10 kt; weather, partly cloudy; sea, calm.

D8

0	6.22	31.90
15	6.11	31.89
30	6.08	31.90
87	2.33	32.05

D7

TORDENSKJOLD; June 20, 1958; 0530 GCT; 55°40'N, 164°00'W; sounding, 52 fm; wind, 050°, 5 kt; weather, cloudy; sea, slight.

C7

0	7.02	32.05
15	6.78	32.03
30	6.38	32.02
94	3.66	32.32

B7

B6

TORDENSKJOLD; June 20, 1958; 1840 GCT; 55°20'N, 164°03'W; sounding, 42 fm; wind, 340°, 15 kt; weather, sky obscured; sea, slight.

OBSERVED		
Z	T	S
m	°C	‰
0	6.52	31.90
15	6.74	31.96
30	6.70	31.99
77	5.17	32.34

TORDENSKJOLD; June 20, 1958; 2356 GCT; 55°20'N, 164°36'W; sounding, 57 fm; wind, 340°, 20 kt; weather, moderate rain; sea, slight.

OBSERVED		
Z	T	S
m	°C	‰
0	6.55	32.01
15	6.09	32.09
30	6.01	32.54
60	5.90	32.64
102	4.90	32.81

B5

H10

TORDENSKJOLD; June 21, 1958; 0435 GCT; 55°18'N, 165°13'W; sounding, 62 fm; wind, 320°, 15 kt; weather, moderate rain; sea, slight.

OBSERVED		
Z	T	S
m	°C	‰
0	6.29	32.05
15	6.26	32.12
30	5.99	32.59
70	5.50	32.60
115	4.77	32.84

TORDENSKJOLD; June 28, 1958; 0035 GCT; 57°20'N, 162°09'W; sounding, 28 fm; wind, 090°, 15 kt; weather, cloudy; sea, slight.

OBSERVED		
Z	T	S
m	°C	‰
0	7.55	32.01
15	5.65	32.05
30	5.41	32.06
49	5.37	32.07

G10

G9

TORDENSKJOLD; June 28, 1958; 0527 GCT; 57°01'N, 162°13'W; sounding, 33 fm; wind, 090°, 15 kt; weather, moderate rain; sea, slight.

OBSERVED		
Z	T	S
m	°C	‰
0	-	31.85
15	7.54	31.90
30	3.91	32.03
60	3.87	32.04

TORDENSKJOLD; June 28, 1958; 1927 GCT; 56°58'N, 162°45'W; sounding, 33 fm; wind, 180°, 10 kt; weather, moderate drizzle; sea, slight.

OBSERVED		
Z	T	S
m	°C	‰
0	7.64	31.90
15	7.38	31.92
30	3.43	32.10
59	3.40	32.10

F9

F10

TORDENSKJOLD; June 29, 1958; 0022 GCT; 56°40'N, 162°43'W; sounding, 38 fm; wind, 230°, 15 kt; weather, fog; sea, slight.

OBSERVED		
Z	T	S
m	°C	‰
0	7.70	31.91
15	7.73	31.91
30	-	31.95
70	3.11	32.02

TORDENSKJOLD; June 29, 1958; 0525 GCT; 56°38'N, 162°07'W; sounding, 41 fm; wind, 200°, 15 kt; weather, sky obscured; sea, slight.

OBSERVED		
Z	T	S
m	°C	‰
0	7.87	31.88
15	7.90	31.85
30	7.80	31.95
75	3.67	31.96

F11

G11

TORDENSKJOLD; June 29, 1958; 2045 GCT; 56°40'N, 161°34'W; sounding, 47 fm; wind, 270°, 3 kt; weather, cloudy; sea, slight.

OBSERVED		
Z	T	S
m	°C	‰
0	7.73	31.80
15	7.70	31.80
30	3.95	31.89
86	3.82	31.91

TORDENSKJOLD; June 30, 1958; 0125 GCT; 56°58'N, 161°33'W; sounding, 37 fm; wind, 070°, 5 kt; weather, sky obscured; sea, slight.

OBSERVED		
Z	T	S
m	°C	‰
0	8.27	31.88
15	7.92	31.98
30	3.92	31.98
68	3.89	31.98

G12

H12

TORDENSKJOLD; June 30, 1958; 0617 GCT; 57°02'N, 161°00'W; sounding, 35 fm; wind, 070°, 5 kt; weather, cloudy; sea, smooth.

OBSERVED		
Z	T	S
m	°C	‰
0	8.28	31.84
15	7.88	31.84
30	4.11	31.97
65	4.07	31.97

TORDENSKJOLD; June 30, 1958; 1953 GCT; 57°21'N, 160°55'W; sounding, 34 fm; wind, 090°, 5 kt; weather, intermittent moderate rain; sea, smooth.

OBSERVED		
Z	T	S
m	°C	‰
0	8.04	31.91
15	7.22	31.95
30	4.86	32.06
63	4.83	32.06

OBSERVED		
Z	T	S
m	°C	‰

TORDENSKJOLD; July 1, 1958; 0015 GCT; 57°41'N, 160°54'W; sounding, 29 fm; wind, 090°, 5 kt; weather, moderate rain; sea, smooth. I12

0	7.46	31.90
9	7.29	31.95
24	4.98	31.95
47	4.95	31.95

TORDENSKJOLD; July 1, 1958; 1921 GCT; 58°00'N, 161°34'W; sounding, 29 fm; wind, 360°, 5 kt; weather, partly cloudy; sea, smooth. J11

0	5.67	31.61
15	5.58	31.61
30	5.61	31.61
54	5.59	31.61

TORDENSKJOLD; July 2, 1958; 0657 GCT; 58°37'N, 161°28'W; sounding, 5 fm; wind, 320°, 3 kt; weather, cloudy; sea, calm. A

0	10.93	27.54
2	10.92	27.50
7	10.89	27.50

TORDENSKJOLD; July 2, 1958; 2022 GCT; 58°26'N, 161°02'W; sounding, 12 fm; wind, calm; weather, partly cloudy; sea, calm. B

0	10.65	27.91
5	10.41	27.93
10	10.10	28.22
18	9.89	28.47

TORDENSKJOLD; July 3, 1958; 0412 GCT; 57°55'N, 160°27'W; sounding, 27 fm; wind, calm; weather, partly cloudy; sea, calm. C

0	10.70	31.75
15	5.67	31.83
30	5.63	31.84
49	5.59	31.85

TORDENSKJOLD; July 4, 1958; 0058 GCT; 57°20'N, 160°13'W; sounding, 32 fm; wind, 140°, 10 kt; weather, partly cloudy; sea, slight. K12

0	8.50	31.90
15	5.75	31.93
30	5.64	31.94
58	5.59	31.96

OBSERVED		
Z	T	S
m	°C	‰

TORDENSKJOLD; July 1, 1958; 0445 GCT; 58°00'N, 160°58'W; sounding, 23 fm; wind, 050°, 5 kt; weather, moderate rain; sea, smooth. J12

0	5.89	31.44
10	5.88	31.52
25	5.71	31.64
42	5.67	31.65

TORDENSKJOLD; July 1, 1958; 2358 GCT; 58°01'N, 162°10'W; sounding, 21 fm; wind, 320°, 3 kt; weather, cloudy; sea, calm. J10

0	6.30	31.53
10	5.72	31.54
20	5.63	31.57
37	5.62	31.60

TORDENSKJOLD; July 2, 1958; 1855 GCT; 58°32'N, 161°15'W; sounding, 7 fm; wind, calm; weather, partly cloudy; sea, calm.

0	11.03	27.08
5	10.85	27.19
11	10.73	27.28

TORDENSKJOLD; July 2, 1958; 2304 GCT; 58°18'N, 160°47'W; sounding, 11 fm; wind, calm; weather, partly cloudy; sea, calm.

0	9.82	28.74
5	9.47	28.96
10	8.83	29.27
21	8.29	29.48

TORDENSKJOLD; July 3, 1958; 1919 GCT; 57°42'N, 160°16'W; sounding, 29 fm; wind, calm; weather, partly cloudy; sea, calm. J13

0	7.40	31.90
15	5.75	31.88
30	5.71	31.88
53	5.66	31.90

TORDENSKJOLD; July 4, 1958; 0614 GCT; 57°21'N, 159°46'W; sounding, 31 fm; wind, 110°, 10 kt; weather, partly cloudy; sea, slight. I13

0	6.80	31.72
15	6.49	31.71
30	6.30	31.70
54	6.23	31.70

H13

H14

G14

TORDENSKJOLD; July 4, 1958; 1915 GCT; 57°00'N, 159°48'W; sounding, 31 fm; wind, 050°, 10 kt; weather, cloudy; sea, slight.

G13

OBSERVED		
Z	T	S
m	°C	‰
0	7.34	31.77
15	7.21	31.76
30	5.65	31.84
56	5.54	31.85

TORDENSKJOLD; July 4, 1958; 2309 GCT; 57°00'N, 160°20'W; sounding, 34 fm; wind, 070°, 5 kt; weather, cloudy; sea, slight.

OBSERVED		
Z	T	S
m	°C	‰
0	9.18	31.72
15	5.89	31.85
30	4.63	31.92
62	4.63	31.93

F12

TORDENSKJOLD; July 5, 1958; 0445 GCT; 56°41'N, 161°01'W; sounding, 37 fm; wind, 070°, 10 kt; weather, sky obscured; sea, smooth.

F13

OBSERVED		
Z	T	S
m	°C	‰
0	9.90	31.72
15	-	31.75
30	4.34	31.91
67	4.30	31.89

TORDENSKJOLD; July 5, 1958; 1855 GCT; 56°39'N, 160°22'W; sounding, 34 fm; wind, 050°, 5 kt; weather, partly cloudy; sea, slight.

OBSERVED		
Z	T	S
m	°C	‰
0	9.10	31.61
15	8.29	31.64
30	8.82	31.75
61	4.70	31.83

D

TORDENSKJOLD; July 5, 1958; 2054 GCT; 56°29'N, 160°22'W; sounding, 20 fm; wind, 090°, 5 kt; weather, intermittent slight drizzle; sea, smooth.

E

OBSERVED		
Z	T	S
m	°C	‰
0	10.09	30.77
10	7.06	31.26
20	6.67	31.44
36	6.16	31.56

TORDENSKJOLD; July 5, 1958; 2227 GCT; 56°21'N, 160°22'W; sounding, 13 fm; wind, 140°, 5 kt; weather, sky obscured; sea, smooth.

OBSERVED		
Z	T	S
m	°C	‰
0	10.50	29.77
5	9.63	30.61
10	7.97	31.00
23	7.26	31.31

F

TORDENSKJOLD; July 5, 1958; 2311 GCT; 56°18'N, 160°22'W; sounding, 8 fm; wind, 140°, 5 kt; weather, cloudy; sea, smooth.

E12

OBSERVED		
Z	T	S
m	°C	‰
0	10.25	28.92
3	9.87	29.85
7	8.71	30.61
13	8.18	30.84

TORDENSKJOLD; July 8, 1958; 0049 GCT; 56°20'N, 161°00'W; sounding, 26 fm; wind, 140°, 15 kt; weather, sky obscured; sea, slight.

OBSERVED		
Z	T	S
m	°C	‰
0	8.04	31.57
15	7.96	31.55
30	6.30	31.63
47	6.13	31.64

E11

TORDENSKJOLD; July 8, 1958; 0523 GCT; 56°21'N, 161°32'W; sounding, 34 fm; wind, 140°, 20 kt; weather, intermittent moderate rain; sea, slight.

G

OBSERVED		
Z	T	S
m	°C	‰
0	8.05	31.71
15	8.09	31.70
30	5.96	31.76
63	5.15	31.80

TORDENSKJOLD; July 8, 1958; 0835 GCT; 56°10'N, 161°26'W; sounding, 26 fm; wind, 140°, 20 kt; weather, sky obscured; sea, slight.

OBSERVED		
Z	T	S
m	°C	‰
0	7.92	31.63
15	7.99	31.59
30	7.96	31.59
48	6.92	31.71

H

TORDENSKJOLD; July 8, 1958; 1052 GCT; 56°00'N, 161°22'W; sounding, 10 fm; wind, 140°, 15 kt; weather, overcast; sea, slight.

D11

OBSERVED		
Z	T	S
m	°C	‰
0	8.34	31.37
5	8.44	31.36
10	8.44	31.36
17	8.40	31.36

TORDENSKJOLD; July 8, 1958; 1932 GCT; 56°00'N, 161°36'W; sounding, 15 fm; wind, 140°, 15 kt; weather, overcast; sea, smooth.

OBSERVED		
Z	T	S
m	°C	‰
0	8.32	31.44
5	8.39	31.42
10	8.34	31.42
27	8.37	31.43

OBSERVED		
Z	T	S
m	°C	‰

TORDENSKJOLD; July 9, 1958; 0005 GCT; 56°01'N, 162°15'W; sounding, 39 fm; wind, calm; weather, cloudy; sea, smooth.

0	8.40	31.87
15	7.94	31.86
30	4.82	31.90
73	4.10	31.94

TORDENSKJOLD; July 9, 1958; 1930 GCT; 56°20'N, 162°50'W; sounding, 44 fm; wind, 140°, 8 kt; weather, intermittent moderate rain; sea, slight.

0	8.27	31.84
15	8.30	31.86
30	7.03	31.89
80	3.32	31.98

TORDENSKJOLD; July 10, 1958; 0551 GCT; 55°40'N, 162°49'W; sounding, 27 fm; wind, 230°, 8 kt; weather, overcast; sea, calm.

0	8.25	31.87
15	7.87	31.72
30	7.77	31.79
49	6.45	31.85

TORDENSKJOLD; July 10, 1958; 2341 GCT; 55°18'N, 163°25'W; sounding, 26 fm; wind, calm; weather, cloudy; sea, slight.

0	8.14	31.72
15	7.83	31.69
30	6.42	31.90
47	6.26	31.93

TORDENSKJOLD; July 11, 1958; 0223 GCT; 55°06'N, 163°28'W; sounding, 10 fm; wind, 140°, 12 kt; weather, cloudy; sea, slight.

0	7.82	31.73
5	7.84	31.72
10	7.62	31.78
17	7.54	31.80

TORDENSKJOLD; July 11, 1958; 0427 GCT; 55°04'N, 163°47'W; sounding, 10 fm; wind, calm; weather, partly cloudy; sea, smooth.

0	8.71	30.84
5	8.60	31.52
10	8.19	31.47
18	8.05	30.94

OBSERVED		
Z	T	S
m	°C	‰

DIO

TORDENSKJOLD; July 9, 1958; 0405 GCT; 56°20'N, 162°13'W; sounding, 42 fm; wind, calm; weather, cloudy; sea, smooth.

EIO

0	8.77	31.82
15	8.28	31.82
30	4.28	31.89
77	3.99	31.93

E9

TORDENSKJOLD; July 10, 1958; 0025 GCT; 55°58'N, 162°45'W; sounding, 43 fm; wind, calm; weather, cloudy; sea, calm.

D9

0	8.85	31.85
15	8.30	31.88
30	5.64	31.96
78	3.78	31.99

C9

TORDENSKJOLD; July 10, 1958; 1928 GCT; 55°39'N, 163°26'W; sounding, 43 fm; wind, 230°, 5 kt; weather, cloudy; sea, slight.

C8

0	8.37	31.91
15	8.24	31.94
30	5.98	31.97
78	4.85	32.24

B8

TORDENSKJOLD; July 11, 1958; 0127 GCT; 55°08'N, 163°20'W; sounding, 9 fm; wind, 140°, 10 kt; weather, cloudy; sea, slight.

I

0	8.40	31.45
5	8.43	31.42
10	8.08	31.46
16	7.83	31.55

J

TORDENSKJOLD; July 11, 1958; 0332 GCT; 55°05'N, 163°38'W; sounding, 15 fm; wind, 140°, 8 kt; weather, cloudy; sea, slight.

K

0	8.09	31.45
5	8.18	31.49
10	7.79	31.63
27	7.44	31.82

L

TORDENSKJOLD; July 11, 1958; 0817 GCT; 54°56'N, 164°27'W; sounding, 10 fm; wind, calm; weather, cloudy; sea, smooth.

M

0	7.82	31.34
3	7.81	31.46
8	7.63	31.51
16	7.29	31.62

N

TORDENSKJOLD; July 11, 1958; 0847 GCT; 54°58'N, 164°31'W; sounding, 26 fm; wind, 200°, 5 kt; weather, cloudy; sea, smooth.

A6

OBSERVED		
Z	T	S
m	°C	‰
0	7.66	31.63
15	7.46	31.68
30	7.26	31.70
47	6.89	31.83

TORDENSKJOLD; July 11, 1958; 0935 GCT; 55°00'N, 164°36'W; sounding, 33 fm; wind, calm; weather, cloudy; sea, calm.

OBSERVED		
Z	T	S
m	°C	‰
0	7.92	31.74
15	7.87	31.86
30	6.85	31.88
60	6.60	31.99

A5

TORDENSKJOLD; July 11, 1958; 2339 GCT; 55°01'N, 165°10'W; sounding, 62 fm; wind, 020°, 12 kt; weather, distant fog higher than observer; sea, slight.

Z5

OBSERVED		
Z	T	S
m	°C	‰
0	7.16	31.98
15	6.92	32.22
30	6.83	32.42
113	4.63	33.02

TORDENSKJOLD; July 12, 1958; 0449 GCT; 54°40'N, 165°10'W; sounding, 46 fm; wind, calm; weather, rain showers; sea, smooth.

OBSERVED		
Z	T	S
m	°C	‰
0	6.98	32.41
15	6.82	32.52
30	6.70	32.55
84	5.46	32.85

O

TORDENSKJOLD; July 12, 1958; 0737 GCT; 54°30'N, 164°55'W; sounding, 11 fm; wind, 320°, 5 kt; weather, heavy rain; sea, smooth.

P

OBSERVED		
Z	T	S
m	°C	‰
0	7.83	31.62
5	7.90	31.62
10	7.89	31.65
20	7.83	31.66

TORDENSKJOLD; July 12, 1958; 0826 GCT; 54°28'N, 165°00'W; sounding, 40 fm; wind, 140°, 12 kt; weather, moderate drizzle; sea, slight.

OBSERVED		
Z	T	S
m	°C	‰
0	7.80	31.67
5	7.85	31.71
30	7.68	31.74
72	7.11	31.83

Q

TORDENSKJOLD; July 12, 1958; 0921 GCT; 56°26'N, 165°07'W; sounding, 64 fm; wind, 110°, 10 kt; weather, rain; sea, slight.

R

OBSERVED		
Z	T	S
m	°C	‰
0	7.18	31.82
15	7.03	31.94
30	6.84	32.07
117	6.25	32.38

TORDENSKJOLD; July 15, 1958; 1741 GCT; 54°37'N, 163°11'W; sounding, 50 fm; wind, calm; weather, partly cloudy; sea, calm.

OBSERVED		
Z	T	S
m	°C	‰
0	8.46	31.35
15	8.38	31.38
30	7.57	31.65
91	5.99	31.82

S

TORDENSKJOLD; July 15, 1958; 2027 GCT; 54°49'N, 163°08'W; sounding, 49 fm; wind, calm; weather, cloudy; sea, calm.

OBSERVED		
Z	T	S
m	°C	‰
0	9.08	31.09
15	8.53	31.15
26	8.13	31.26
87	6.15	31.78

POG

P-58-1

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

CGS ST. CATHARINES; March 9, 1958; 1911 GCT; 50°00'N, 145°00'W; wind, variable, force 5; weather, overcast; sea, moderate. 101

0	6.10	32.859	7.68			0.33	25.87	0	6.10	32.86	25.87	214	0.00
10	6.03	32.786	7.68			0.24	25.82	10	6.03	32.79	25.82	218	0.02
20	6.03	32.788	7.83			0.24	25.83	20	6.03	32.79	25.83	218	0.04
30	6.01	32.779	7.66			0.24	25.82	30	6.01	32.78	25.82	219	0.07
49	6.00	32.790	7.62			0.24	25.83	50	6.00	32.79	25.83	218	0.11
74	6.01	32.794	7.62			0.25	25.83	75	6.01	32.79	25.83	218	0.16
99	6.01	32.801	7.55			0.25	25.84	100	6.00	32.81	25.85	217	0.22
123	5.45	33.337	6.56			0.06	26.33	125	5.39	33.37	26.36	169	0.27
148	4.59	33.571	5.71			0.04	26.61	150	4.54	33.58	26.63	144	0.31
172	4.24	33.677	5.13			0.03	26.73	175	4.21	33.69	26.74	132	0.34
197	4.08	33.753	4.27			0.02	26.81	200	4.06	33.76	26.82	126	0.38
222	3.90	33.805	3.54			0.02	26.87	250	3.73	33.84	26.91	117	0.44
246	3.75	33.834	3.17			0.02	26.91						
296	3.71	33.865	2.32			0.02	26.94						

CGS ST. CATHARINES; March 12, 1958; 1950, 1902 GCT; 50°00'N, 145°00'W; wind, variable, force 5; weather, overcast; sea, slight. 102

0	6.10	32.924	8.09	1.28	25	0.26	25.92	0	6.10	32.92	25.92	209	0.00
10	6.20a)	32.862	8.00	1.35	25	0.24	(25.86)	10	6.20	32.86	25.86	215	0.02
25	6.25	32.870	7.95	1.33	26	0.24	25.86	20	6.25	32.85	25.85	216	0.04
49	6.23	32.875	7.88	1.35	27	0.24	25.87	30	6.26	32.87	25.86	215	0.06
74	6.23	32.888	7.88	1.35	-	0.24	25.88	50	6.23	32.88	25.87	215	0.11
99	6.23	32.873	7.88	1.40	26	0.24	25.87	75	6.23	32.89	25.88	214	0.16
124	6.24	32.896	7.76	1.40	26	0.25	25.88	100	6.23	32.87	25.87	215	0.22
149	5.47	33.560	6.28	1.94	43	0.03	26.50	125	6.22	32.91	25.90	213	0.27
173	4.75	33.650	5.30	2.15	-	0.02	26.66	150	5.44	33.57	26.52	154	0.32
198	4.18	33.711	5.00	2.47	-	0.03	26.77	175	4.70	33.66	26.67	140	0.35
248	3.74	33.798	3.45	2.81	-	0.03	26.88	200	4.14	33.72	26.77	130	0.39
297	3.76	33.903	2.58	2.99	88	0.03	26.96	250	3.73	33.80	26.88	120	0.45
								300	3.76	33.91	26.96	112	0.51
396	3.83	34.028	1.84	3.14	-	0.02	27.05	400	3.83	34.03	27.06	105	0.62
495	3.66	34.145	1.11	3.26	115	0.02	27.16	500	3.65	34.15	27.17	95	0.72
743	3.24	34.297	0.73	3.15	-	0.02	27.32	600	3.48	34.23	27.25	88	0.81
992	2.85	34.396	0.75	3.28	-	0.02	27.44	700	3.31	34.29	27.31	83	0.90
1240	2.55	34.462	1.68u	3.24	157	0.02	27.52	800	3.15	34.32	27.35	79	0.98
								1000	2.84	34.40	27.44	71	1.13
								1200	2.59	34.45	27.51	66	1.27

CGS ST. CATHARINES; March 15, 1958; 1915 GCT; 50°00'N, 144°44'W; wind, 060°, force 4; weather, cloudy; sea, moderate. 103

0	6.30	32.900	7.94	1.24	28	0.22	25.88	0	6.30	32.90	25.88	213	0.00
5	6.43	32.880	7.91	1.22	24	0.20	25.85	10	6.40	32.88	25.85	216	0.02
10	6.40	32.879	8.04	1.28	25	0.21	25.85	20	6.40	32.88	25.85	216	0.04
25	6.43	32.887	7.91	1.29	25	0.21	25.85	30	6.42	32.89	25.85	216	0.06
50	6.33	32.881	8.02	1.23	26	0.21	25.86	50	6.33	32.88	25.86	215	0.11
69	6.30	32.884	7.85	1.24	25	0.22	25.87	75	6.28	32.88	25.87	215	0.16
79	6.27	32.879	7.91	1.29	26	0.24	25.87	100	6.27	32.90	25.88	214	0.22
89	6.28	32.896	7.77	1.32	27	0.24	25.88	125	6.14	33.26	26.18	186	0.27
98	6.27	32.890	7.85	1.36	25	0.24	25.88	150	5.22	33.61	26.57	149	0.31
122	6.20	33.218	7.02	1.64	32	0.12	26.14	175	4.48	33.68	26.71	136	0.34
147	5.32	33.586	6.15	1.98	44	0.02	26.54	200	4.10	33.74	26.79	128	0.38
171	4.57	33.671	5.51	2.24	53	0.01	26.69	250	3.84	33.82	26.89	119	0.44
196	4.15	33.728	4.14	2.41	62	0.01	26.78	300	3.74	33.87	26.94	115	0.50
220	3.95	33.780	3.99	2.58	71	0.01	26.84						
244	3.86	33.815	3.64	2.62	74	0.01	26.88						
294	3.75	33.867	2.84	2.84	84	0.01	26.93						
300	3.74b)	33.871b)	-	-	-	-	(26.94)						

a) Value interpolated graphically by three-point parabolic method. On PAPA cruises (P-58-1 through P-58-4) where footnotes are used to indicate interpolated and extrapolated values, the parentheses have been omitted because of space limitations.

b) Value extrapolated by computer.

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
104	CGS ST. CATHARINES; March 19, 1958; 1937, 1852 GCT; 50°00'N, 145°16'W; wind, 040°, force 4; weather, cloudy; sea, rough.												
0	6.00	32.890	7.77	1.31	26	0.23	25.91	0	6.00	32.89	25.91	210	0.00
9	6.08	32.857	7.57	1.31	25	0.22	25.87	10	6.09	32.86	25.87	214	0.02
23	6.12	32.866	7.58	1.33	25	0.22	25.88	20	6.12	32.86	25.87	214	0.04
46	6.09	32.858	7.57	1.38	26	0.23	25.87	30	6.12	32.87	25.88	214	0.06
69	6.11	32.855	7.58	1.37	25	0.23	25.87	50	6.09	32.86	25.87	214	0.11
92	5.87	32.869	7.60	1.41	27	0.25	25.91	75	6.07	32.86	25.87	214	0.16
119	5.92	32.908	7.32	1.45	28	0.21	25.93	100	5.85	32.88	25.92	210	0.22
134	5.20	33.112a)	5.95	1.97	43	0.02	(26.18)	125	5.70	32.97	26.01	202	0.27
157	4.64	33.676	5.40	2.08	51	0.02	26.69	150	4.74	33.47	26.52	154	0.31
186	4.51	33.732	4.83	2.33	57	0.01	26.75	175	4.48	33.80	26.80	127	0.35
234	3.91	33.780	3.77	2.61	70	0.02	26.85	200	4.38	33.75	26.78	130	0.38
281	3.69	33.863	2.67	2.86	81	0.02	26.94	250	3.79	33.80	26.88	120	0.44
								300	3.66	33.89	26.96	112	0.50
376	3.87	34.012	1.92	2.98	92	0.02	27.04	400	3.87	34.04	27.06	104	0.61
475	3.73	34.104	1.24	3.08	104	0.01	27.12	500	3.70	34.12	27.14	97	0.71
731	3.39	34.268	0.83	3.08	118	0.01	27.29	600	3.56	34.20	27.21	91	0.81
967	2.91	34.377	0.68	3.16	131	0.01	27.42	700	3.43	34.25	27.27	86	0.90
1212	2.59	34.452	0.85	3.16	143	0.01	27.51	800	3.27	34.30	27.33	81	0.98
								1000	2.86	34.39	27.43	72	1.14
								1200	2.60	34.45	27.50	66	1.28
105	CGS ST. CATHARINES; March 23, 1958; 1905 GCT; 49°50'N, 144°44'W; wind, 200°, force 1; weather, overcast; sea, moderate.												
0	6.10	32.948	7.47	1.24	25	0.32	25.94	0	6.10	32.95	25.94	207	0.00
5	6.26	32.935	7.46	1.25	25	0.24	25.91	10	6.29	32.89	25.87	214	0.02
10	6.29	32.892	7.49	1.26	25	0.24	25.87	20	6.29	32.87	25.86	215	0.04
25	6.25	32.899	7.52	1.26	25	0.24	25.89	30	6.25	32.90	25.89	213	0.06
50	6.27	32.897	7.47	1.26	25	0.24	25.88	50	6.27	32.90	25.88	214	0.11
69	6.26	32.893	7.53	1.26	24	0.24	25.88	75	6.26	32.89	25.88	214	0.16
79	6.26	32.891	7.50	1.30	25	0.24	25.88	100	6.23	32.90	25.89	213	0.22
89	6.26	32.896	7.52	1.29	25	0.24	25.88	125	5.91	33.58	26.46	159	0.26
99	6.24	32.896	7.55	1.33	25	0.23	25.88	150	5.08	33.64	26.61	145	0.30
124	5.93	33.564	6.10	1.75	37	0.03	26.45	175	4.70	33.73	26.72	135	0.34
149	5.10	33.640	5.70	1.93	45	0.04	26.61	200	4.43	33.77	26.79	129	0.37
174	4.71	33.726	5.22	2.14	52	0.03	26.72	250	3.94	33.81	26.87	121	0.43
198	4.45	33.768	4.61	2.29	59	0.03	26.78	300	3.75	33.88	26.94	114	0.49
223	4.18	33.792	4.07	2.50	65	0.03	26.83						
248	3.95	33.812	3.53	2.64	73	-	26.87						
298	3.75	33.875	2.71	2.85	82	0.03	26.94						
300	3.75b)	33.878b)	-	-	-	-	(26.94)						

a) Value interpolated by computer.
b) Value extrapolated by computer.

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

106

CGS ST. CATHARINES; March 26, 1958; 1940, 1844 GCT; 49°50'N, 144°44'W; wind, variable, force 1; weather, slight rain showers; sea, calm.

0	6.50	32.943	7.60	1.26	25	0.23	25.89	0	6.50	32.94	25.89	212	0.00
10	6.44	32.899	7.57	1.27	23	0.23	25.86	10	6.44	32.90	25.86	215	0.02
25	6.37	32.899	7.54	1.28	23	0.23	25.87	20	6.39	32.89	25.86	215	0.04
50	6.33	32.899	7.52	1.30	23	0.24	25.88	30	6.35	32.90	25.87	214	0.06
75	6.34	32.902	7.49	1.27	23	0.24	25.88	50	6.33	32.90	25.88	214	0.11
99	6.32	32.906	7.46	1.31	23	0.23	25.88	75	6.34	32.90	25.88	214	0.16
124	5.79	33.600	5.99	1.82	38	0.03	26.50	100	6.31	32.92	25.89	213	0.22
148	5.19	33.701	5.62	1.96	45	0.02	26.65	125	5.77	33.62	26.51	155	0.26
173	4.84	33.746	5.24	2.12	49	0.03	26.72	150	5.15	33.71	26.66	141	0.30
197	4.53	33.748	-	2.28	59	0.02	26.76	175	4.81	33.75	26.73	134	0.33
246	4.10	33.792	3.67	2.56	70	0.03	26.84	200	4.50	33.75	26.76	131	0.37
295	3.80	33.884	2.73	2.74	82	0.02	26.94	250	4.07	33.80	26.85	123	0.43
								300	3.78	33.89	26.95	114	0.49
394	3.87	34.027	1.68	2.93	97	0.03	27.05	400	3.87	34.03	27.05	105	0.60
494	3.81	34.143	1.14	3.04	106	0.03	27.15	500	3.80	34.15	27.15	96	0.70
744	3.30	34.283	0.66	3.14	-	0.03	27.31	600	3.66	34.23	27.23	90	0.80
993	2.86	34.393	0.60	3.16	140	0.03	27.44	700	3.43	34.27	27.29	85	0.88
1243	2.57	34.464	0.67	2.94	149	0.03	27.52	800	3.20	34.31	27.34	80	0.97
								1000	2.85	34.40	27.44	71	1.12
								1200	2.61	34.45	27.51	66	1.26

107

CGS ST. CATHARINES; March 29, 1958; 1930 GCT; 49°50'N, 145°00'W; wind, 340°, force 5; weather, partly cloudy; sea, rough.

0	6.00	32.967	7.57	1.44	27	0.26	25.97	0	6.00	32.97	25.97	204	0.00
5	6.22	32.880	7.57	1.44	25	0.22	25.87	10	6.20	32.88	25.88	214	0.02
10	6.20	32.878	7.60	1.48	25	0.22	25.88	20	6.19	32.89	25.88	213	0.04
24	6.20	32.897	7.56	1.47	25	0.23	25.89	30	6.20	32.90	25.89	212	0.06
48	6.20	32.882	7.56	1.45	25	0.22	25.88	50	6.20	32.88	25.88	214	0.11
68	6.20	32.878	7.55	1.46	25	0.22	25.88	75	6.19	32.88	25.88	214	0.16
87	6.16	32.879	7.55	1.47	28	0.23	25.88	100	6.11	32.87	25.88	214	0.22
97	6.12	32.871	7.54	1.52	25	0.22	25.88	125	5.50	33.65	26.57	149	0.26
106	6.09	32.874	7.54	1.53	26	0.23	25.89	150	5.08	33.66	26.62	144	0.30
121	5.60	33.552	6.04	2.08	40	0.03	26.48	175	4.61	33.72	26.73	134	0.33
145	5.17	33.639	5.72	2.22	45	0.03	26.60	200	4.31	33.76	26.79	128	0.36
169	4.71	33.710	5.24	2.40	52	0.03	26.71	250	4.07	33.84	26.88	120	0.43
193	4.37	33.743	4.00	2.60	59	0.02	26.77	300	3.77	33.89	26.95	114	0.49
218	4.24	33.809	3.96	2.78	69	0.02	26.84						
242	4.11	33.832	3.62	2.86	67	0.02	26.87						
289	3.84	33.878	2.73	3.11	80	0.02	26.93						
300	3.77a)	33.889a)	-	-	-	-	(26.95)						

108

CGS ST. CATHARINES; April 2, 1958; 1901 GCT; 50°00'N, 145°00'W; wind, 320°, force 4; weather, intermittent slight rain; sea, rough.

0	5.90	32.817	7.59	1.33	30	0.25	25.86	0	5.90	32.82	25.86	214	0.00
10	5.92	32.784	7.54	1.32	27	0.22	25.84	10	5.92	32.78	25.84	217	0.02
24	5.95	32.831	7.57	1.35	27	0.22	25.87	20	5.94	32.81	25.85	216	0.04
48	5.89	32.821	7.58	1.40	27	0.23	25.87	30	5.95	32.84	25.88	214	0.06
71	5.89	32.828	7.58	1.36	27	0.21	25.87	50	5.89	32.82	25.87	215	0.11
95	5.89	32.836	7.55	1.35	27	0.21	25.88	75	5.89	32.83	25.88	214	0.16
119	6.02	33.224	6.71	1.61	32	0.12	26.17	100	5.91	32.89	25.92	211	0.22
143	5.38	33.617	5.50	1.85	43	0.03	26.56	125	5.93	33.32	26.26	178	0.26
167	4.74	33.668	5.41	2.04	50	0.02	26.67	150	5.19	33.67	26.62	144	0.30
191	4.38	33.730	4.75	2.34	59	0.03	26.76	175	4.59	33.69	26.70	136	0.34
240	3.96	33.781	3.67	2.55	70	0.03	26.84	200	4.27	33.75	26.78	129	0.37
289	3.72	33.854	2.80	2.72	80	0.03	26.93	250	3.90	33.79	26.86	122	0.44
300	3.69a)	33.873a)	-	-	-	-	(26.94)	300	3.69	33.87	26.94	114	0.50

a) Value extrapolated by computer.

POG

P-58-I

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

109 CGS ST. CATHARINES; April 5, 1958; 1904 GCT; 50°00'N, 145°00'W; wind, 300°, force 3; weather, cloudy; sea, rough.

0	6.10	32.908			25	0.24	25.91	0	6.10	32.91	25.91	210	0.00
5	6.15	32.856			25	0.21	25.86	10	6.10	32.86	25.87	214	0.02
9	6.11	32.858			26	0.21	25.87	20	6.12	32.86	25.87	214	0.04
23	6.15	32.856			26	0.21	25.86	30	6.15	32.86	25.86	215	0.06
47	6.11	32.857			26	0.21	25.87	50	6.11	32.86	25.87	214	0.11
66	6.11	32.854			26	0.21	25.87	75	6.08	32.85	25.87	215	0.16
85	6.01	32.852			27	0.22	25.88	100	6.00	32.85	25.88	214	0.22
94	6.01	32.848			26	0.21	25.88	125	5.80	33.66	26.54	152	0.26
103	6.00	32.856			27	0.22	25.88	150	5.15	33.67	26.63	144	0.30
117	5.93	33.486			37	0.04	26.39	175	4.60	33.73	26.74	133	0.33
140	5.40	33.627			42	0.03	26.56	200	4.32	33.77	26.80	128	0.37
164	4.78	33.709			50	0.03	26.70	250	4.09	33.84	26.88	120	0.43
187	4.49	33.750			57	0.02	26.76	300	3.82	33.89	26.94	114	0.49
210	4.18	33.785			65	0.02	26.82						
234	4.14	33.820			68	0.02	26.86						
280	3.95	33.872			80	0.02	26.92						
300	3.82a)	33.888a)			-	-	(26.94)						

110 CGS ST. CATHARINES; April 9, 1958; 1935, 1852 GCT; 50°00'N, 145°00'W; wind, 150°, force 2; weather, cloudy; sea, calm.

0	5.90	32.811	8.36	1.26	28	0.24	25.86	0	5.90	32.81	25.86	215	0.00
10	5.89	32.808	8.39	1.30	28	0.23	25.86	10	5.89	32.81	25.86	215	0.02
25	5.91	32.813	8.39	1.33	28	0.23	25.86	20	5.90	32.81	25.86	215	0.04
50	5.88	32.808	8.42	1.33	28	0.25	25.86	30	5.91	32.81	25.86	215	0.06
75	5.97	32.813	8.42	1.33	28	0.24	25.85	50	5.88	32.81	25.86	216	0.11
100	5.71	33.177	6.82	1.56	34	0.13	26.17	75	5.97	32.81	25.85	216	0.16
125	5.35	33.633	6.42	1.81	44	0.04	26.57	100	5.71	33.18	26.17	186	0.21
150	4.83	33.694	5.95	2.00	50	0.04	26.68	125	5.35	33.63	26.57	148	0.26
175	4.46	33.730	5.43	2.13	57	0.04	26.75	150	4.83	33.69	26.68	138	0.29
199	4.29	33.758	4.93	2.30	62	0.04	26.79	175	4.46	33.73	26.75	132	0.33
249	4.05	33.837	3.68	2.54	72	0.04	26.88	200	4.28	33.76	26.79	128	0.36
298	3.95	33.892	2.93	2.68	80	0.04	26.93	250	4.05	33.84	26.88	120	0.42
								300	3.95	33.89	26.94	115	0.48
398	3.73	34.015	1.68	2.86	95	0.04	27.05	400	3.73	34.02	27.05	105	0.59
497	3.75	34.133	1.27	2.93	100	0.04	27.14	500	3.75	34.14	27.15	97	0.69
750	3.23	34.297	0.83	3.06	122	0.04	27.33	600	3.64	34.22	27.23	90	0.79
1000	2.83	34.393	0.68	3.05	134	0.03	27.44	700	3.40	34.28	27.30	84	0.88
1250	2.51	34.468	0.80	3.02	144	0.03	27.53	800	3.14	34.32	27.35	79	0.96
								1000	2.83	34.39	27.44	71	1.11
								1200	2.57	34.45	27.51	65	1.25

a) Value extrapolated by computer.

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

111

CGS ST. CATHARINES; April 16, 1958; 1954, 1910 GCT; 50°00'N, 145°16'W; wind, 270°, force 3; weather, partly cloudy, distant precipitation; sea, rough.

0	6.10	32.848	8.55	1.35	27	0.22	25.86	0	6.10	32.85	25.86	214	0.00
10	6.27	32.858	8.46	1.28	26	0.21	25.85	10	6.27	32.86	25.85	216	0.02
25	6.18	32.859	8.46	1.33	26	0.22	25.86	20	6.26	32.86	25.85	216	0.04
49	6.16	32.857	8.49	1.31	26	0.24	25.86	30	6.16	32.86	25.86	215	0.06
74	6.15	32.862	8.47	1.28	26	0.22	25.87	50	6.16	32.86	25.86	215	0.11
98	6.15	32.891	8.37	1.29	27	0.12	25.89	75	6.15	32.86	25.87	215	0.16
123	5.42	33.464	6.78	1.82	42	0.04	26.43	100	6.12	32.92	25.92	211	0.22
147	4.77	33.650	6.10	2.04	51	0.04	26.65	125	5.36	33.49	26.46	159	0.26
172	4.47	33.717	5.59	2.12	57	0.03	26.74	150	4.71	33.66	26.67	139	0.30
196	4.24	33.752	4.41	2.32	62	0.04	26.79	175	4.44	33.72	26.75	132	0.33
245	3.86	33.798	3.90	2.58	72	0.03	26.87	200	4.20	33.76	26.80	127	0.37
294	3.71	33.863	2.96	2.76	82	0.04	26.93	250	3.83	33.80	26.87	121	0.43
								300	3.70	33.87	26.94	114	0.49
387	3.71	34.010	1.76	2.96	99	0.04	27.05	400	3.71	34.03	27.06	104	0.60
484	3.75	34.105	1.39	3.01	106	0.04	27.12	500	3.75	34.12	27.13	98	0.70
728	3.32	34.280	0.92	3.11	126	0.03	27.30	600	3.64	34.20	27.21	92	0.80
976	2.84	34.390	0.73	3.10	139	0.03	27.43	700	3.41	34.26	27.28	85	0.89
1275	2.49	34.472	0.71	3.10	151	0.03	27.53	800	3.19	34.32	27.35	79	0.97
								1000	2.80	34.40	27.45	71	1.12
								1200	2.55	34.46	27.51	65	1.26

201

CGS ST. CATHARINES; May 31, 1958; 1936, 2007 GCT; 50°00'N, 145°00'W; wind, 320°, force 3; weather, cloudy; sea, slight.

0	9.30	32.929	6.90	1.45	27.0	0.22	25.47	0	9.30	32.93	25.47	252	0.00
10	8.76	32.885	6.65	1.37	27.3	0.14	25.52	10	8.76	32.89	25.52	247	0.02
20	8.40a)	32.903b)	-	-	-	-	(25.59)	20	8.40	32.90	25.59	241	0.05
30	7.87	32.917	7.12	1.32	26.9	0.11	25.68	30	7.87	32.92	25.68	232	0.07
50	6.61	32.933	7.31	1.40	28.0	0.10	25.87	50	6.61	32.93	25.87	215	0.12
75	5.93	32.938	6.89	1.45	29.0	0.18	25.96	75	5.93	32.94	25.96	207	0.17
100	5.90	32.952	7.07	1.52	-	-	25.97	100	5.90	32.95	25.97	206	0.22
125	5.53	33.474	5.76	1.92	40.6	0.02	26.43	125	5.53	33.47	26.43	162	0.27
150	5.01	33.701	5.16	2.11	50.4	0.00	26.67	150	5.01	33.70	26.67	140	0.31
175	4.61	33.750a)	4.83	-	-	0.01	(26.75)	175	4.61	33.75	26.75	132	0.34
200	4.32	33.784	4.18	2.40	62.3	0.02	26.81	200	4.32	33.78	26.81	127	0.38
								250	3.98	33.85	26.90	118	0.44
300	3.97	33.924	2.56	2.46	81.8	0.01	26.96	300	3.97	33.92	26.96	113	0.50
396	3.80	34.035	1.51	3.26	98.2	0.01	27.06	400	3.79	34.04	27.07	104	0.60
495	3.72	34.136	1.11	3.34	108.0	0.00	27.15	500	3.71	34.14	27.15	96	0.70
738	3.33	34.298	0.66	3.18	125.0	0.00	27.32	600	3.59	34.22	27.23	90	0.80
1100	2.72	34.433	0.56	3.42	147.0	0.01	27.48	700	3.41	34.28	27.30	84	0.89
1200	2.55c)	34.448c)	-	-	-	-	(27.51)	800	3.23	34.33	27.35	79	0.97
								1000	2.89	34.41	27.44	71	1.12
								1200	2.55	34.45	27.51	65	1.26

202

CGS ST. CATHARINES; June 4, 1958; 1905 GCT; 50°10'N, 145°00'W; wind, 140°, force 3; weather, clear; sea, slight.

0	9.60	32.922	6.93	1.56	26.2		25.42	0	9.60	32.92	25.42	257	0.00
10	9.60a)	32.886b)	-	-	-		(25.39)	10	9.60	32.89	25.39	260	0.03
20	8.50a)	32.870a)	-	-	-		(25.55)	20	8.50	32.87	25.55	245	0.05
30	7.72	32.873	7.29	1.55	26.4		25.67	30	7.72	32.87	25.67	234	0.08
50	6.70	32.867	7.29	1.58	27.0		25.80	50	6.70	32.87	25.80	221	0.12
75	6.13	32.918	7.25	1.67	29.3		25.92	75	6.13	32.92	25.92	210	0.18
90	5.88	32.943	7.29	1.67	29.6		25.97	100	5.84	32.93	25.96	207	0.23
100	5.84	32.927	6.91	1.71	29.2		25.96	125	5.57	33.46	26.41	164	0.28
110	5.69	32.948	-	1.67	30.6		25.99	150	5.09	33.66	26.62	144	0.31
125	5.57	33.460	5.89	2.12	41.5		26.41						
150	5.09	33.656	5.51	2.35	48.8		26.62						

a) Value interpolated graphically by three-point parabolic method.
b) Value interpolated by computer.
c) Value extrapolated by computer.

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
203	CGS ST. CATHARINES; June 7, 1958; 1856, 1955 GCT; 50°00'N, 144°44'W; wind, 180°, force 3; weather, intermittent slight drizzle; sea, moderate.												
0	10.40	32.973	7.90	1.43	28.6	0.18	25.32	0	10.40	32.97	25.32	266	0.00
10	10.22	32.899	6.72	1.40	28.8	0.16	25.30	10	10.22	32.90	25.30	269	0.03
20	8.70a)	32.895b)	-	-	-	-	(25.54)	20	8.70	32.89	25.54	246	0.05
30	8.00	32.897	7.34	-	28.5	0.11	25.65	30	8.00	32.90	25.65	236	0.08
50	6.86	32.919	7.53	1.35	28.8	0.09	25.82	50	6.86	32.92	25.82	219	0.12
75	6.36	32.933	7.30	1.40	28.4	0.13	25.90	75	6.36	32.93	25.90	212	0.18
100	5.77	32.936	7.53	1.44	30.2	0.21	25.97	100	5.77	32.94	25.97	205	0.23
124	5.97	33.386	6.78	1.62	35.8	0.00	26.30	125	5.95	33.40	26.32	173	0.28
148	4.91	33.718	5.16	2.02	51.7	0.00	26.69	150	4.85	33.73	26.71	136	0.32
173	4.53	33.757	4.76	2.24	57.9	0.00	26.76	175	4.50	33.76	26.77	130	0.35
195	4.22	33.800a)	4.20	2.35	65.7	0.00	(26.83)	200	4.17	33.81	26.84	123	0.38
242	4.03	33.864	3.05	2.56	77.2	0.00	26.90	250	4.00	33.87	26.91	117	0.44
288	3.90	33.913	2.45	2.80	85.5	0.00	26.95	300	3.86	33.92	26.97	112	0.50
								400	3.66	34.02	27.07	104	0.61
333	3.76	33.951	1.94	2.65	91.3	0.00	27.00	500	3.72	34.16	27.17	95	0.71
484	3.73	34.143	1.06	3.00	109.0	0.00	27.15	600	3.57	34.25	27.25	88	0.80
737	3.24	34.317	0.63	3.06	128.0	0.00	27.34	700	3.35	34.30	27.32	82	0.89
1090	2.73	34.436	0.52	3.34	145.0	0.00	27.48	800	3.13	34.35	27.38	77	0.97
1242	2.56	34.476	0.66	3.36	147.0	0.01	27.53	1000	2.84	34.42	27.46	70	1.11
								1200	2.60	34.47	27.52	65	1.25
204	CGS ST. CATHARINES; June 11, 1958; 1945, 2005 GCT; 50°00'N, 144°44'W; wind, 200°, force 4; weather, moderate drizzle; sea, rough.												
0	10.70	32.887	6.88	1.47	28.1	0.13	25.21	0	10.70	32.89	25.21	277	0.00
10	10.45	32.896	6.53	1.45	28.2	0.09	25.26	10	10.45	32.90	25.26	272	0.03
20	10.50a)	32.904b)	-	-	-	-	(25.25)	20	10.50	32.90	25.25	273	0.06
30	8.28	32.912	7.52	1.40	28.4	0.08	25.62	30	8.28	32.91	25.62	238	0.08
50	7.18	32.924	7.56	1.45	27.2	0.12	25.78	50	7.18	32.92	25.78	223	0.13
75	6.55	32.923	7.71	1.51	28.8	0.17	25.87	75	6.55	32.92	25.87	215	0.18
89	6.08	32.932	7.13	1.56	29.5	0.22	25.93	100	5.80	32.94	25.97	205	0.24
98	5.82	32.934	7.19	1.65	30.3	0.24	25.97	125	5.95	33.44	26.35	170	0.28
								150	5.04	33.70	26.66	140	0.32
108	5.84	32.960	7.17	1.66	30.2	0.00	25.98	175	4.70	33.75	26.74	133	0.36
123	5.97	33.398	6.03	2.06	36.9	0.00	26.31	200	4.27	33.78	26.81	126	0.39
148	5.09	33.687	5.26	-	49.8	0.00	26.65	250	4.05	33.85	26.89	119	0.45
173	4.73	33.748	4.76	-	57.2	0.00	26.74	300	3.95	33.89	26.93	116	0.51
198	4.30	33.777	4.23	-	65.6	0.00	26.81						
248	4.06	33.848	3.46	-	78.2	0.00	26.89						
298	3.95	33.891	2.67	-	85.1	0.00	26.93						
300	3.95c)	33.892c)	-	-	-	-	(26.93)						
204A	CGS ST. CATHARINES; June 12, 1958; 1905 GCT; 50°00'N, 144°44'W; wind, 240°, force 3; weather, cloudy; sea, moderate.												
0	10.5	-	-			-							
51	6.56	32.898	7.36			0.10							
75	5.92	32.919	7.29			0.22							
90	5.84	32.937	7.43			0.21							
95	5.78	32.937	7.72			0.21							
100	5.85	32.953	7.64			0.20							
104	5.82	32.934	7.19			0.20							
109	5.79	32.936	7.37			0.21							
114	5.77	32.969	7.53			0.21							
124	5.61	32.930	7.21			0.23							

a) Value interpolated graphically by three-point parabolic method.
b) Value interpolated by computer.
c) Value extrapolated by computer.

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

205

CGS ST. CATHARINES; June 14, 1958; 1914, 2105 GCT; 50°00'N, 145°00'W; wind, 210°, force 5; weather, moderate drizzle; sea, rough.

0	10.30	32.962	6.84	1.32	29.6	0.21	25.33	0	10.30	32.96	25.33	265	0.00
10	10.16	32.858	6.96	1.30	29.6	0.16	25.28	10	10.16	32.86	25.28	271	0.03
20	8.50a)	32.854b)	-	-	-	-	(25.54)	20	8.50	32.85	25.54	246	0.05
29	7.90	32.856	7.52	1.32	30.4	0.12	25.63	30	7.84	32.86	25.64	236	0.08
48	7.04	32.876	7.64	1.31	29.9	0.10	25.76	50	6.95	32.88	25.78	223	0.12
72	5.95	32.914	6.82	1.40	30.0	0.19	25.93	75	5.87	32.92	25.95	208	0.18
95	5.70	32.925	7.25	1.46	30.7	0.24	25.97	100	5.67	32.93	25.98	205	0.23
119	5.66	32.945	7.32	1.45	30.7	0.29	25.99	125	5.69	33.11	26.12	192	0.28
136	5.77	33.579	5.68	1.84	43.6	0.01	26.48	150	5.31	33.76	26.68	139	0.32
158	4.83	33.721	5.04	2.09	53.5	0.00	26.70	175	4.42	33.78	26.79	128	0.36
198	4.31	33.782	4.22	2.36	64.8	0.00	26.81	200	4.29	33.78	26.81	126	0.39
247	3.93	33.853	3.05	2.70	78.6	0.00	26.90	250	3.92	33.86	26.91	117	0.45
297	3.81	33.923	2.32	2.74	87.8	0.00	26.97	300	3.80	33.93	26.98	111	0.51
								400	3.72	34.05	27.08	102	0.61
478	3.78	34.124	1.05	3.13	112.0	-	27.13	500	3.76	34.14	27.15	96	0.71
736	3.30	34.295	0.66	3.21	133.0	-	27.32	600	3.62	34.22	27.23	90	0.81
982	2.87	34.398	0.57	3.26	144.0	-	27.44	700	3.40	34.28	27.30	84	0.90
1000	2.84c)	34.403c)	-	-	-	-	(27.45)	800	3.19	34.33	27.35	79	0.98
								1000	2.84	34.40	27.45	71	1.13

2-501

CGS ST. CATHARINES; June 16, 1958; 1900 GCT;[d] 49°50'N, 145°00'W.

0	10.3	32.695
47	7.36	32.927
71	6.63	32.941
94	5.94	32.957
117	5.81	32.966

2-502

CGS ST. CATHARINES; June 16, 1958; 2042 GCT; 49°50'N, 145°00'W.

0	10.3	32.841
48	7.04	32.938
73	6.35	32.945
96	5.93	32.952
119	5.86	33.127
144	5.56	33.624
192	4.68	33.750

2-503

CGS ST. CATHARINES; June 16, 1958; 2234 GCT; 50°00'N, 145°00'W.

0	10.3	32.820
50	6.50	32.850
75	5.84	32.896
100	5.73	32.981
125	5.76	33.434
150	5.07	33.708
200	4.40	33.777

2-504

CGS ST. CATHARINES; June 17, 1958; 0036 GCT; 50°00'N, 145°00'W.

0	10.3	32.856
10	10.1	32.856
49	6.42	32.864
73	6.12	32.937
97	5.82	32.995
122	5.57	33.625
146	5.01	33.696

a) Value interpolated graphically by three-point parabolic method.
b) Value interpolated by computer.
c) Value extrapolated by computer.
d) Stations 2-501 through 2-525 were occupied as a 50-hour series.

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OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

2-505 CGS ST. CATHARINES; June 17, 1958; 0243 GCT; 50°00'N, 145°00'W.

0	10.2	32.843
48	6.92	32.938
72	6.35	32.960
97	5.96	32.967
121	5.68	33.465
145	5.18	33.667
193	4.37	33.770

2-506 CGS ST. CATHARINES; June 17, 1958; 0439 GCT; 50°00'N, 145°00'W.

0	10.3	32.805
48	6.81	32.937
72	5.94	32.923
97	5.66	32.931
121	5.72	33.239
145	5.15	33.667
193	4.48	33.759

2-507 CGS ST. CATHARINES; June 17, 1958; 0643 GCT; 50°00'N, 145°00'W.

0	10.3	32.829
49	6.92	32.934
74	6.03	32.937
98	5.64	32.944
123	5.62	33.510
148	5.18	33.692
197	4.35	33.775

2-508 CGS ST. CATHARINES; June 17, 1958; 0836 GCT; 50°00'N, 145°00'W.

0	10.2	32.810
49	6.77	32.911
74	5.97	32.939
98	5.70	32.949
123	5.75	33.354
148	5.28	33.680
197	4.41	33.772

2-509 CGS ST. CATHARINES; June 17, 1958; 1035 GCT; 50°00'N, 145°00'W.

0	10.1	32.812
50	6.97	32.945
75	6.12	32.954
100	5.79	32.959
124	5.71	33.357
149	5.25	33.676
199	4.49	33.773

2-510 CGS ST. CATHARINES; June 17, 1958; 1235 GCT; 50°00'N, 145°00'W.

0	10.1	32.833
50	7.25	32.898
75	6.14	32.915
100	5.79	32.936
124	5.75	32.971
149	5.29	33.666
199	4.48	33.756

2-511 CGS ST. CATHARINES; June 17, 1958; 1440 GCT; 50°10'N, 145°00'W.

0	10.1	32.850
48	6.70	32.917
72	6.18	32.934
97	5.88	32.964
121	5.74	33.228
145	5.01	33.710

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

CGS ST. CATHARINES; June 17, 1958; 1640, 1655 GCT; 50°10'N, 145°00'W. 2-512

0	10.3	32.840
47	6.89	32.956
70	5.97	32.933
97	5.87	32.961
121	5.76	33.209
145	5.09	33.680
193	4.29	33.778

CGS ST. CATHARINES; June 17, 1958; 1843, 1851 GCT; 50°10'N, 145°00'W. 2-513

0	10.3	32.846
49	6.63	32.911
75	5.91	32.931
100	5.63	32.942
125	5.66	33.516
150	5.02	33.703
199	4.29	33.784

CGS ST. CATHARINES; June 17, 1958; 2034 GCT; 50°10'N, 145°00'W. 2-514

0	10.3	32.863a)
50	6.37	32.943
75	5.90	32.966
100	5.71	32.973
125	5.56	33.564
150	4.78	33.710
200	4.17	33.782

CGS ST. CATHARINES; June 17, 1958; 2245 GCT; 50°10'N, 144°44'W. 2-515

0	10.4	32.863
50	7.06	32.919
75	6.19	32.932
100	5.74	32.945
125	5.71	33.282
150	4.90	33.693
200	4.24	33.771

CGS ST. CATHARINES; June 18, 1958; 0031 GCT; 50°10'N, 144°44'W. 2-516

0	10.5	32.851
50	6.94	32.938
75	6.14	32.921
100	5.79	32.967
125	5.70	33.361
150	4.93	33.685
200	4.26	33.772

CGS ST. CATHARINES; June 18, 1958; 0244 GCT; 50°10'N, 144°44'W. 2-517

0	10.4	32.834
50	6.86	32.921
75	6.22	32.928
99	5.72	32.938
124	5.68	33.346
148	5.06	33.660
198	4.27	33.769

CGS ST. CATHARINES; June 18, 1958; 0440 GCT; 50°10'N, 144°44'W. 2-518

0	10.4	32.848
48	6.97	32.934
73	6.05	-
96	5.65	32.940
119	5.72	33.302
144	4.94	33.668
192	4.27	33.765

a) Alternate value, 32.884‰.

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OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

2-519 CGS ST. CATHARINES; June 18, 1958; 0639 GCT; 50°00'N, 145°00'W.

0	10.3	32.799
48	6.63	32.897
73	5.90	32.927
96	5.73	32.954
119	5.70	33.433
144	5.02	33.709
192	4.31	33.778

2-520 CGS ST. CATHARINES; June 18, 1958; 0842 GCT; 50°00'N, 145°00'W.

0	10.1	32.821
48	6.80	32.932
73	5.89	32.936
96	5.86	32.966
119	5.77	33.423
144	5.18	33.686
192	4.47	33.757

2-521 CGS ST. CATHARINES; June 18, 1958; 1036 GCT; 50°00'N, 145°00'W.

0	10.1	32.808
50	6.59	32.946
75	5.64	32.905
100	5.75	32.991
125	5.58	33.589
150	5.10	33.706
200	4.40	33.763

2-522 CGS ST. CATHARINES; June 18, 1958; 1236 GCT; 50°00'N, 145°00'W.

0	10.3	32.790
50	6.93	32.885
75	6.23	32.944
99	5.84	32.959
124	5.71	33.264
149	5.29	33.681
199	4.52	33.754

2-523 CGS ST. CATHARINES; June 18, 1958; 1442 GCT; 50°10'N, 145°00'W.

0	10.1	32.799
49	6.56	32.950
74	6.09	32.964
98	5.82	33.010
123	5.62	33.588
148	4.92	33.724
197	4.20	33.782

2-524 CGS ST. CATHARINES; June 18, 1958; 1652 GCT; 50°00'N, 145°00'W.

0	10.3	32.803
49	6.83	32.910
74	5.85	32.903
98	5.68	32.953
123	5.65	33.324
148	5.11	33.700
197	5.36	33.769

2-525 CGS ST. CATHARINES; June 18, 1958; 1837 GCT; 50°00'N, 145°00'W.

0	10.3	32.816
50	6.58	32.906
75	5.96	32.948
100	5.80	32.969
125	5.77	33.409
150	5.19	33.693
199	4.54	33.770

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

CGS ST. CATHARINES; June 18, 1958; 2053 GCT; 50°00'N, 145°00'W; wind, 130°, force 6; weather, fog; sea, rough. 206

0	10.50	32.827	6.79		29.3	0.15	25.19	0	10.50	32.83	25.19	278	0.00
10	10.07	32.821	6.78		29.3	0.11	25.26	10	10.07	32.82	25.26	272	0.03
20	10.10a)	32.843b)	-		-	-	(25.27)	20	10.10	32.84	25.27	271	0.06
30	7.77	32.869	7.32		30.6	0.14	25.66	30	7.77	32.87	25.66	235	0.08
50	6.54	32.931	7.31		29.4	0.22	25.87	50	6.54	32.93	25.87	214	0.13
75	5.92	32.934	7.01		30.1	0.28	25.95	75	5.92	32.93	25.95	207	0.18
99	5.78	32.965	7.06		30.4	0.16	26.00	100	5.77	32.97	26.00	202	0.23
109	5.73	33.055	6.72		32.5	0.02	26.07	125	5.71	33.49	26.42	163	0.28
124	5.72	33.474	5.76		39.7	0.01	26.40	150	5.18	33.71	26.66	141	0.31
149	5.20	33.708	-		48.9	0.01	26.65	175	4.71	33.81	26.79	129	0.35
199	4.31	33.779	4.17		64.5	0.01	26.81	200	4.30	33.78	26.81	127	0.38
249	3.93	33.832	3.14		76.5	0.01	26.89	250	3.93	33.83	26.89	119	0.44
299	3.82	33.898	2.45		86.0	0.01	26.95	300	3.82	33.90	26.95	114	0.50
300	3.82c)	33.899c)	-		-	-	(26.95)						

CGS ST. CATHARINES; June 21, 1958; 1916, 1949 GCT; 50°00'N, 145°00'W; wind, 200°, force 2; weather, cloudy; sea, moderate. 207

0	10.30	32.893	6.76	1.28	27.9		25.28	0	10.30	32.89	25.28	270	0.00
10	10.15	32.822	6.80	1.31	27.8		25.25	10	10.15	32.82	25.25	273	0.03
20	10.20	32.809b)	-	-	-		(25.23)	20	10.20	32.81	25.23	275	0.06
30	9.95	32.825	7.10	1.31	27.6		25.29	30	9.95	32.83	25.29	270	0.08
50	7.10	32.942	7.40	1.25	26.6		25.81	50	7.10	32.94	25.81	220	0.13
75	6.30	32.954	7.10	1.32	27.7		25.92	75	6.30	32.95	25.92	210	0.19
100	5.98	33.044	7.15	1.44	29.5		26.03	100	5.98	33.04	26.03	200	0.24
125	5.76	33.503	5.79	1.69	39.0		26.42	125	5.76	33.50	26.42	163	0.28
150	5.16	33.726	5.14	1.89	48.5		26.67	150	5.16	33.73	26.67	140	0.32
175	4.77	33.760	4.79	2.11	55.1		26.74	175	4.77	33.76	26.74	133	0.36
200	4.41	33.794	4.32	2.27	63.6		26.81	200	4.41	33.79	26.81	127	0.39
250	3.98	33.846	3.40	2.50	74.3		26.89	250	3.98	33.85	26.89	119	0.45
300	3.85	33.904	2.58	2.79	84.5		26.95	300	3.85	33.90	26.95	114	0.51
								400	3.87	34.05	27.07	104	0.62
394	3.87	34.045	1.64	2.95	98.5		27.06	500	3.73	34.13	27.14	97	0.72
494	3.74	34.126	0.95	3.10	107.0		27.14	600	3.57	34.21	27.22	90	0.81
745	3.27	34.319	0.60	3.24	129.0		27.34	700	3.37	34.29	27.30	83	0.90
995	2.86	34.418	0.54	3.30	143.0		27.46	800	3.17	34.35	27.37	77	0.98
1242	2.53	34.476	0.49	3.33	152.0		27.53	1000	2.85	34.42	27.46	70	1.13
								1200	2.58	34.47	27.52	64	1.27

CGS ST. CATHARINES; June 23, 1958; 1916 GCT; 50°00'N, 145°00'W; wind, direction missing, force 1; weather, partly cloudy; sea, calm. 207A

240	3.92	33.854	3.05	2.73	78.8
287	3.82	33.970	2.34	2.94	87.0
335	3.91	33.996	1.92	2.80	93.4
383	3.89	34.046	1.59	3.13	99.3
432	3.75	34.089	1.23	3.21	106.0
480	3.74	34.147	0.97	3.29	112.0
530	3.68	34.188	0.81	3.20	116.0
580	3.62	34.221	0.76	3.23	120.0
680	3.35	34.286	0.71	-	-

CGS ST. CATHARINES; June 24, 1958; 1856 GCT; 50°00'N, 145°00'W; wind, 320°, force 2; weather, cloudy; sea, slight. 207B

690	3.36	34.286	0.60	3.22	129.0
791	3.14	34.338	0.56	3.24	136.0
892	3.03	34.375	0.59	3.26	140.0
993	2.86	34.412	0.55	3.23	145.0
1095	-	34.434	0.56	3.25	148.0
1246	2.58	34.485	0.46	3.18	154.0

a) Value interpolated graphically by three-point parabolic method.
b) Value interpolated by computer.
c) Value extrapolated by computer.

POG

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OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
208	CGS ST. CATHARINES; June 25, 1958; 1906 GCT; 50°00'N, 145°00'W; wind, 280°, force 2; weather, cloudy; sea, slight.												
0	12.10	32.950	6.72		27.7	0.18	25.00	0	12.10	32.95	25.00	297	0.00
10	10.57	32.831	6.99		27.8	0.12	25.18	10	10.57	32.83	25.18	279	0.03
20	10.00a)	32.889b)	-		-	-	(25.33)	20	10.00	32.89	25.33	266	0.06
30	7.52	32.927	7.73		26.4	0.08	25.74	30	7.52	32.93	25.74	227	0.08
50	6.72	32.945	7.32		27.6	0.10	25.86	50	6.72	32.94	25.86	215	0.13
75	6.20	32.999	7.16		28.2	0.22	25.97	75	6.20	33.00	25.97	205	0.18
89	5.95	32.965	7.09		29.1	0.33	25.97	100	5.89	33.00	26.01	202	0.23
99	5.90	32.994	7.11		29.7	0.33	26.00	125	5.68	33.51	26.44	162	0.28
109	5.85	33.051	6.91		30.6	0.10	26.05	150	5.09	33.73	26.68	138	0.31
124	5.70	33.490	5.85		39.7	0.01	26.42	175	4.76	33.78	26.76	132	0.35
148	5.13	33.720	5.20		49.4	0.01	26.67	200	4.42	33.80	26.81	127	0.38
173	4.79	33.775	4.74		57.4	0.00	26.75	250	3.97	33.84	26.89	119	0.44
198	4.44	33.794	4.22		62.5	0.00	26.80	300	3.76	33.90	26.95	113	0.50
248	3.98	33.841	3.36		76.3	0.00	26.89						
298	3.76	33.893	2.48		85.9	0.00	26.95						
300	3.76c)	33.895c)	-		-	-	(26.95)						
209	CGS ST. CATHARINES; June 28, 1958; 1849, 1913, 1950 GCT; 50°00'N, 145°00'W; wind, 230°, force 3; weather, intermittent slight rain; sea, moderate.												
0	11.20	32.792	6.83	1.34	28.2	0.16	25.04	0	11.20	32.79	25.04	292	0.00
10	11.04	32.795	7.15	1.30	28.5	0.14	25.07	10	11.04	32.80	25.07	290	0.03
20	10.00a)	32.789b)	-	-	-	-	(25.25)	20	10.00	32.79	25.25	273	0.06
30	9.80	32.820	7.24	1.31	28.7	0.12	25.31	30	9.80	32.82	25.31	268	0.08
50	6.88	32.992	7.56	1.31	27.7	0.10	25.88	50	6.88	32.99	25.88	214	0.13
75	6.05	32.964	7.38	1.44	29.2	0.29	25.96	75	6.05	32.96	25.96	206	0.19
100	5.76	32.972	7.19	1.46	30.3	0.43	26.00	100	5.76	32.97	26.00	202	0.24
125	5.74	33.338	6.78	1.71	38.9	0.02	26.29	125	5.74	33.34	26.29	175	0.28
150	5.26	33.713	5.36	2.01	48.1	0.02	26.65	150	5.26	33.71	26.65	142	0.32
								175	4.87	33.76	26.73	134	0.36
173	4.90	33.760	5.01	2.15	54.4	-	26.73	200	4.59	33.79	26.78	129	0.39
198	4.61	33.785	4.58	2.27	60.9	-	26.78	250	4.03	33.83	26.88	120	0.46
247	4.05	33.827	3.52	2.59	74.1	-	26.87	300	3.82	33.91	26.96	113	0.52
295	3.84	33.899	2.53	-	87.0	-	26.95	400	3.63	34.04	27.08	102	0.62
								500	3.71	34.15	27.16	95	0.72
495	3.72	34.146	0.90	3.20	116.0	-	27.16	600	3.58	34.23	27.24	89	0.82
750	3.30	34.306	0.63	3.28	135.0	-	27.33	700	3.41	34.29	27.30	83	0.90
1000	2.91	34.402	0.56	3.23	148.0	-	27.44	800	3.22	34.33	27.35	79	0.98
1248	2.55	34.462	0.78	3.24	156.0	-	27.52	1000	2.91	34.40	27.44	72	1.14
								1200	2.62	34.45	27.50	66	1.28
210	CGS ST. CATHARINES; July 2, 1958; 1907, 1917 GCT; 50°00'N, 145°00'W; wind, calm; weather, overcast; sea, missing.												
0	11.80	32.734	6.50			0.13	24.89	0	11.80	32.73	24.89	307	0.00
10	11.02	32.761	6.85			0.16	25.05	10	11.02	32.76	25.05	292	0.03
20	10.70	32.777b)	-			-	(25.12)	20	10.70	32.78	25.12	286	0.06
30	10.50	32.809	6.98			0.14	25.18	30	10.50	32.81	25.18	280	0.09
50	6.91	32.920	7.40			0.10	25.82	50	6.91	32.92	25.82	220	0.14
75	6.25	32.965	7.28			0.19	25.94	75	6.25	32.97	25.94	208	0.19
90	5.85	32.955	7.12			0.43	25.98	100	5.68	32.96	26.00	202	0.24
								125	5.77	33.34	26.29	175	0.29
100	5.68	32.960	7.13			0.47	26.00	150	5.21	33.68	26.63	143	0.33
110	5.81	33.020	7.03			0.51	26.04	175	4.79	33.75	26.73	134	0.37
125	5.77	33.339	6.18			0.02	26.29	200	4.54	33.78	26.78	129	0.40
150	5.21	33.683	5.28			0.01	26.63	250	4.06	33.83	26.87	121	0.46
175	4.79	33.752	4.84			0.00	26.73	300	3.77	33.88	26.94	115	0.52
200	4.54	33.781	4.45			0.01	26.78						
250	4.06	33.833	3.40			0.02	26.87						
300	3.77	33.877	2.52			0.02	26.94						

a) Value interpolated graphically by three-point parabolic method.
b) Value interpolated by computer.
c) Value extrapolated by computer.

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

CGS ST. CATHARINES; July 3, 1958; 1919 GCT; 50°00'N, 144°44'W; wind, 110°, force 3; weather, overcast; sea, slight. 210A

75	6.19	32.963	6.88			0.32							
90	5.85	32.943	7.08			0.37							
95	5.75	32.938	7.11			0.41							
100	5.68	32.953	-			0.42							
105	5.78	32.997	-			0.47							
110	5.76	33.018	-			0.48							
115	5.79	33.074	-			0.08							
120	5.76	33.180	-			0.004							
125	5.70	33.361	-			0.00							
150	5.21	33.717	-			0.01							

CGS ST. CATHARINES; July 4, 1958; 1944, 2018 GCT; 50°10'N, 145°00'W; wind, 180°, force 3; weather, cloudy; sea, moderate. 211A

200	4.33	33.802	4.17	2.47	60.3								
250	4.00	33.852	3.32	2.77	71.4								
300	3.73	33.896	2.41	2.97	79.9								
350	3.74	33.954	2.04	2.84	84.9								
400	3.77	34.014	1.49	3.03	90.5								
449	3.77	34.103	1.30	3.14	96.0								
498	3.76	34.146	1.03	3.16	101.0								
547	3.65	34.182	0.83	3.24	108.0								
594	3.59	34.216	0.74	3.29	112.0								
695	3.34	34.285	0.58	3.33	120.0								
795	3.15	34.372	0.54	3.35	124.0								
894	2.98	34.405	0.53	3.19	-								
993	2.83	34.436	0.50	3.37	131.0								
1092	2.71	34.478	0.50	3.32	133.0								
1240	2.58	-	0.50	3.33	137.0								

CGS ST. CATHARINES; July 5, 1958; 1906 GCT; 50°00'N, 145°00'W; wind, 140°, force 4; weather, intermittent slight rain; sea, moderate. 211

0	11.80	32.769	6.76	1.63	-	0.13	24.92	0	11.80	32.77	24.92	305	0.00
10	11.59	32.759	6.78	1.35	-	0.12	24.95	10	11.59	32.76	24.95	302	0.03
20	11.53	32.763	6.89	1.38	-	0.07	24.96	20	11.53	32.76	24.96	301	0.06
30	10.35	32.789	7.27	1.40	26.6	0.11	25.19	30	10.35	32.79	25.19	279	0.09
50	6.56	32.844	7.46	1.54	30.2	0.11	25.80	50	6.56	32.84	25.80	221	0.14
74	5.68	32.878	7.17	1.63	31.6	0.25	25.94	75	5.66	32.88	25.94	208	0.19
99	5.79	32.995	6.94	1.60	28.4	0.48	26.02	100	5.79	33.01	26.03	200	0.25
123	5.50	33.544	5.64	1.93	40.4	0.01	26.49	125	5.47	33.57	26.51	154	0.29
148	5.06	33.710	5.11	2.10	47.4	0.00	26.67	150	5.03	33.72	26.68	139	0.33
173	4.67	33.766	4.60	2.34	53.8	0.00	26.76	175	4.64	33.77	26.76	131	0.36
197	4.38	33.782	4.19	2.58	59.6	0.00	26.80	200	4.35	33.78	26.81	127	0.39
247	4.00	33.855	3.19	2.77	71.5	0.00	26.90	250	3.98	33.86	26.90	118	0.46
296	3.73	33.890	2.43	3.08	81.0	0.01	26.95	300	3.72	33.89	26.96	113	0.51
345	3.75	33.952	1.89	3.10	86.8	0.00	27.00						

POG

P-58-2
P-58-3

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
212	CGS ST. CATHARINES; July 8, 1958; 1911 GCT; 50°00'N, 145°00'W; wind, 240°, force 2; weather, cloudy; sea, slight.												
0	12.80	32.801	6.53			0.17	24.75	0	12.80	32.80	24.75	320	0.00
10	11.74	32.764	6.79			0.13	24.92	10	11.74	32.76	24.92	304	0.03
20	10.60a)	32.787b)	-			-	(25.15)	20	10.60	32.79	25.15	283	0.06
32	8.22	32.827	7.47			0.10	25.56	30	8.69	32.82	25.48	251	0.09
50	6.70	32.913	7.41			0.11	25.84	50	6.70	32.91	25.84	218	0.13
75	6.24	32.972	7.18			0.19	25.94	75	6.24	32.97	25.94	208	0.19
90	5.75	32.957	7.09			0.55	25.99	100	5.73	32.99	26.02	201	0.24
100	5.73	32.991	7.09			0.58	26.02	125	5.53	33.09	26.12	191	0.29
110	5.79	33.024	7.03			0.61	26.04	150	5.20	33.48	26.47	158	0.33
125	5.53	33.087	6.84			0.04	26.12	175	4.64	33.71	26.72	135	0.37
150	5.20	33.485	5.82			0.01	26.47	200	4.52	33.78	26.79	129	0.40
175	4.64	33.710	5.04			0.01	26.72	250	4.05	33.81	26.86	122	0.47
200	4.52	33.782	4.51			0.01	26.79	300	3.83	33.88	26.94	115	0.53
250	4.05	33.815	3.75			0.01	26.86						
300	3.83	33.883	2.76			0.01	26.94						
301	CGS ST. CATHARINES; August 23, 1958; 2003, 2112 GCT;[c] 49°50'N, 145°16'W; wind, 260°, force 3; weather, drizzle; sea, rough.												
0	12.60	32.667	6.52	1.17	18.0		24.69	0	12.60	32.67	24.69	326	0.00
9	12.54	32.653	6.17	0.81	25.3		24.69	10	12.54	32.65	24.69	327	0.03
19	12.51	32.656	5.92	0.76	14.2		24.70	20	12.51	32.66	24.70	326	0.07
								30	12.34	32.66	24.73	323	0.10
28	12.49	32.651	5.05	0.86	15.4		24.70	50	8.36	32.88	25.58	242	0.16
48	8.65	32.869	6.61	1.08	23.4		25.53	75	6.13	32.98	25.96	206	0.21
								100	5.84	33.04	26.04	198	0.26
72	6.29	32.966	5.90	1.74	26.1		25.93	125	5.87	33.26	26.22	182	0.31
97	5.86	33.020	6.75	1.22	28.4		26.03	150	5.63	33.69	26.59	148	0.35
122	5.88	33.222	6.22	1.34	30.7		26.19	175	5.00	33.73	26.69	138	0.39
146	5.70	33.654	4.46	1.73	42.5		26.55	200	4.57	33.79	26.79	128	0.42
171	5.08	33.722	4.84	1.92	49.3		26.68	250	3.98	33.83	26.88	120	0.48
196	4.63	33.786	4.30	2.08	55.1		26.78	300	3.82	33.89	26.94	114	0.54
244	4.03	33.820	2.97	2.10	70.4		26.87	400	3.86	34.03	27.05	105	0.65
293	3.84	33.880	2.60	2.69	82.0		26.93	500	3.72	34.16	27.17	95	0.76
								600	3.57	34.24	27.25	88	0.85
391	3.87	34.019	1.71	2.97	96.2		27.04	700	3.38	34.28	27.30	84	0.94
489	3.74	34.145	0.87	2.78	106.0		27.15	800	3.21	34.31	27.34	80	1.08
733	3.32	34.282	0.65	3.14	134.0		27.30	1000	2.87	34.40	27.44	71	1.17
980	2.90	34.392	0.56	2.92	148.0		27.43	1200	2.61	34.45	27.51	66	1.31
1227	2.58	34.459	0.47	2.69	164.0		27.51						
302	CGS ST. CATHARINES; August 27, 1958; 2020, 2038 GCT; 50°10'N, 145°16'W; wind, 190°, force 5; weather, slight drizzle; sea, rough.												
0	13.00	32.615	6.57		15.8	0.10	24.57	0	13.00	32.61	24.57	338	0.00
10	12.77	32.614	6.31		13.4	0.07	24.61	10	12.77	32.61	24.61	334	0.03
29	12.52	32.607	6.17		13.0	0.08	24.66	20	12.61	32.61	24.64	331	0.07
48	6.96	32.915	6.34		26.6	0.09	25.81	30	12.36	32.62	24.69	327	0.10
67	6.21	32.942	6.99		27.4	0.66	25.92	50	6.65	32.93	25.86	216	0.16
72	6.03	32.961	6.32		28.3	0.60	25.96	75	5.90	32.96	25.97	205	0.21
76	5.86	32.952	6.85		33.0	0.65	25.98	100	5.70	33.03	26.05	198	0.26
86	5.77	32.986	6.87		33.0	0.45	26.01	125	5.27	33.45	26.44	162	0.30
96	5.72	33.001	6.63		33.5	0.04	26.03	150	4.91	33.71	26.69	138	0.34
105	5.68	33.072	6.99		29.6	0.00	26.09	175	4.58	33.76	26.76	131	0.38
120	5.36	33.365	5.91		40.1	0.00	26.36	200	4.05	33.79	26.84	124	0.41
144	4.99	33.674	4.83		50.7	0.00	26.65						
168	4.71	33.748	4.75		56.0	0.00	26.74						
192	4.17	33.776	4.07		63.8	0.00	26.82						
240	3.86	33.841	2.86		75.8	0.15	26.90						

a) Value interpolated graphically by three-point parabolic method.
b) Value interpolated by computer.
c) The second time is the time given for all casts following the first cast.

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

303

CGS ST. CATHARINES; August 30, 1958; 1909, 1943 GCT; 50°00'N, 145°00'W; wind, 290°, force 3; weather, cloudy; sea, slight.

0	12.60	32.638	6.64	1.21	22.2	0.10	24.66	0	12.60	32.64	24.66	329	0.00
10	12.33	32.627	6.13	-	15.6	0.10	24.71	10	12.33	32.63	24.71	325	0.03
20	12.29	32.626	5.99	0.88	14.9	0.09	24.71	20	12.29	32.63	24.61	324	0.06
30	12.30	32.627	5.28	0.96	15.3	0.05	24.71	30	12.30	32.63	24.71	325	0.10
50	6.98	32.894	6.76	1.33	29.2	0.10	25.79	50	6.98	32.89	25.79	223	0.15
75	6.01	32.926	6.28	-	31.6	0.64	25.94	75	6.01	32.93	25.94	208	0.21
100	5.57	32.987	6.55	1.44	32.9	0.00	26.04	100	5.57	32.99	26.04	199	0.26
125	5.33	33.392	5.48	1.70	41.9	0.02	26.39	125	5.33	33.39	26.39	166	0.30
150	5.00	33.695	4.20	2.14	51.5	0.00	26.66	150	5.00	33.69	26.66	140	0.34
175	4.62	33.737	4.68	2.11	57.5	0.00	26.74	175	4.62	33.74	26.74	133	0.38
200	4.30	33.763	4.18	2.75	63.8	0.00	26.79	200	4.30	33.76	26.79	128	0.41
249	3.93	33.831	2.91	2.74	76.9	0.00	26.89	250	3.92	33.83	26.89	119	0.47
299	3.80	33.887	2.26	2.54	88.0	0.00	26.94	300	3.80	33.89	26.95	114	0.53
								400	3.78	34.03	27.06	105	0.64
400	3.78	34.026	1.22	2.92	103.2	-	27.06	500	3.72	34.13	27.14	97	0.74
500	3.72	34.129	0.93	3.49	113.2	-	27.14	600	3.59	34.21	27.22	90	0.84
750	3.27	34.289	0.66	3.13	131.2	-	27.31	700	3.39	34.27	27.29	85	0.93
988	2.87	34.382	0.57	2.94	146.3	-	27.43	800	3.18	34.31	27.34	80	1.01
1000	2.85a)	34.385a)	-	-	-	-	(27.43)	1000	2.85	34.39	27.43	72	1.16

304

CGS ST. CATHARINES; September 1, 1958; 1930 GCT; 49°50'N, 144°44'W; wind, 260°, force 3; weather, overcast; sea, moderate.

701	3.34	34.264	0.68	2.77	124	27.29	700	(3.34)	(34.26)	(27.29)
799	3.18	34.316	0.72	3.29	130	27.34	800	3.19	34.31	27.34
897	3.02	34.359	0.62	3.18	141	27.39				
996	2.87	34.387	0.59	2.98	140	27.43				
1097	2.73	34.420	0.59	2.87	144	27.47				
1248	2.58	-	0.77	2.63	120					

305

CGS ST. CATHARINES; September 2, 1958; 1858 GCT; 50°00'N, 145°00'W; wind, 240°, force 4; weather, intermittent moderate drizzle; sea, moderate.

199	4.18	33.792	3.72	2.02	66.9	26.83	200	4.17	33.79	26.83
248	3.84	33.838	2.53	2.02	77.4	26.90	300	3.72	33.92	26.98
298	3.72	33.921	2.22	2.75	87.0	26.98	400	3.69	34.03	27.07
347	3.68	33.958	1.70	2.58	83.7	27.01	500	3.70	34.16	27.17
396	3.68	34.030	1.34	2.66	101.0	27.07	600	3.50	34.22	27.24
445	3.76	34.105	1.09	2.64	105.0	27.12	700	(3.34)	(34.26)	(27.29)
494	3.69	34.157	0.91	3.07	110.0	27.17				
543	3.60	34.189	0.72	3.12	115.0	27.20				
595	3.52	34.211	0.58	2.78	119.0	27.23				
646	3.42	34.246	0.59	2.87	123.0	27.27				
697	3.32	34.273	0.62	2.95	127.0	27.30				

306

CGS ST. CATHARINES; September 3, 1958; 1915 GCT; 49°50'N, 145°00'W; wind, 340°, force 3; weather, cloudy; sea, rough.

0	12.30	32.721a)	6.66	21.4	0.10	(24.79)	b)
10	12.35	32.609	6.33	16.1	0.07	24.69	
30	12.32	32.607	6.29	16.8	0.07	24.69	
50	8.07	32.900	6.56	28.1	0.07	25.64	
70	6.86	32.984	6.80	28.7	0.23	25.87	
74	6.76	32.985	6.68	28.8	0.20	25.89	
79	6.63	33.004	6.81	28.4	0.35	25.92	
84	6.38	-	6.75	29.4	0.54		
89	6.20	-	6.38	29.5	0.54		
99	5.82	32.992	6.84	31.7	0.03	26.01	
109	5.79	32.996	6.61	30.9	0.00	26.02	
124	5.82	33.414	5.62	38.0	0.00	26.34	
149	4.95	33.715	4.83	52.0	0.00	26.69	
174	4.51	33.752	4.30	60.6	0.00	26.76	
198	4.20	33.787	3.81	69.3	0.00	26.82	
248	3.88	33.827	2.93	77.8	0.00	26.89	
298	3.75	33.907	2.08	89.7	0.00	26.96	

a) Value extrapolated by computer.

b) For data at standard depths see next page, Station 304 (Composite), a composite of Stations 304, 305 and 306.

POG

P-58-3

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

304 (COMPOSITE) CGS ST. CATHARINES; September 1-3, 1958; missing GCT; 49°50'N, 144°44'W (50°00'N, 145°00'W; 49°50'N, 145°00'W); wind, missing; weather, missing; sea, missing.[a]

0	12.30	32.721b)					(24.79)	0	12.30	32.72	24.79	317	0.00
10	12.35	32.609					24.69	10	12.35	32.61	24.69	326	0.03
30	12.32	32.607					24.69	20	12.36	32.57	24.66	330	0.06
50	8.07	32.900					25.64	30	12.32	32.61	24.69	326	0.10
74	6.76	32.985					25.89	50	8.07	32.90	25.64	237	0.16
99	5.82	32.992					26.01	75	6.71	32.99	25.89	213	0.21
124	5.82	33.414					26.34	100	5.80	33.00	26.02	201	0.26
149	4.95	33.715					26.69	125	5.80	33.43	26.36	169	0.31
174	4.51	33.752					26.76	150	4.92	33.72	26.69	137	0.35
199	4.18	33.792					26.83	175	4.49	33.75	26.77	130	0.38
248	3.84	33.838					26.90	200	4.17	33.79	26.83	124	0.42
298	3.72	33.921					26.98	250	3.83	33.84	26.90	118	0.48
396	3.68	34.030					27.07	300	3.72	33.92	26.98	111	0.53
494	3.69	34.157					27.17	400	3.68	34.03	27.07	103	0.64
595	3.52	34.211					27.23	500	3.69	34.16	27.17	94	0.74
697	3.32	34.273					27.30	600	3.51	34.21	27.23	89	0.83
799	3.18	34.316					27.34	700	3.32	34.27	27.30	83	0.92
996	2.87	34.387					27.43	800	3.18	34.32	27.35	80	1.00
1097	2.73	34.420					27.47	1000	2.86	34.39	27.43	72	1.16
1248	2.58	-						1200	2.62				

307 CGS ST. CATHARINES; September 6, 1958; 1900, 2118 GCT;[c] 50°00'N, 145°00'W; wind, 240°, force 3; weather, overcast; sea, moderate.

0	12.40	32.648	6.55	1.05	18.7	0.13	24.71	0	12.40	32.65	24.71	324	0.00
10	12.27	32.630	6.20	0.82	9.4	0.04	24.72	10	12.27	32.63	24.72	324	0.03
20	12.23	32.629	6.07	0.75	9.9	0.04	24.73	20	12.23	32.63	24.73	323	0.06
30	12.22	32.628	5.92	0.80	10.4	0.09	24.73	30	12.22	32.63	24.73	323	0.10
50	8.05	32.860	6.71	1.24	24.2	0.08	25.61	50	8.05	32.86	25.61	240	0.15
75	6.02	32.936	6.78	1.13	28.0	0.45	25.94	75	6.02	32.94	25.94	208	0.21
100	5.38	33.015	6.63	1.13	29.8	0.00	26.08	100	5.38	33.02	26.08	195	0.26
125	5.12	33.361	5.56	1.77	40.4	0.00	26.39	125	5.12	33.36	26.39	166	0.31
150	5.04	33.722	4.33	2.01	48.5	0.00	26.68	150	5.04	33.72	26.68	139	0.34
174	4.64	33.760	4.50	2.28	55.2	0.00	26.76	175	4.62	33.76	26.76	131	0.38
199	4.27	33.780	3.96	2.09	62.5	0.00	26.81	200	4.26	33.78	26.81	126	0.41
249	3.94	33.841	2.89	2.33	74.1	0.00	26.89	250	3.93	33.84	26.89	119	0.47
299	3.74	33.898	2.28	2.94	85.6	0.00	26.96	300	3.74	33.90	26.96	113	0.53
								400	3.66	34.03	27.07	103	0.64
400	3.66	34.029	1.40	3.22	102.0	0.00	27.07	500	3.68	34.14	27.15	96	0.74
500	3.68	34.136	1.04	3.24	111.0	0.00	27.15	600	3.64				
750	3.46d)	-	-	-	-	-		700	3.53				
								800	3.37				
1001	2.84	34.400	0.63	3.36	147.0	0.00	27.44	1000	2.84				
								1200	2.58				
1252	2.54	34.460	0.69	3.28	155.0	0.00	27.52						

a) This station is a composite of observed data from Stations 304, 305 and 306.
b) Value extrapolated by computer.
c) The second time is the time given for all casts following the first cast.
d) Value interpolated by computer.

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

CGS ST. CATHARINES; September 10, 1958; 1922 GCT; 50°00'N, 145°16'W; wind, calm; weather, clear; sea, calm. 308

0	12.40	32.668	6.43		16.2	0.11	24.73	0	12.40	32.67	24.73	323	0.00
10	12.34	32.650	6.33		14.7	0.11	24.72	10	12.34	32.65	24.72	323	0.03
30	12.27	32.645	6.15		17.0	0.11	24.73	20	12.30	32.64	24.73	323	0.06
50	7.28	32.975	6.98		30.6	0.14	25.81	30	12.27	32.64	24.73	323	0.10
70	6.40	33.020	7.01		34.3	0.34	25.96	50	7.28	32.97	25.81	220	0.15
75	6.14	33.025	6.91		29.3	0.54	26.00	75	6.14	33.03	26.00	203	0.20
79	5.96	33.020	6.83		30.1	0.80	26.02	100	5.61	33.06	26.09	194	0.26
84	5.85	33.025	6.75		29.4	0.39	26.03	125	5.50	33.35	26.33	172	0.30
89	5.72	33.032	6.57		28.9	0.02	26.06	150	4.93	33.71	26.68	139	0.34
99	5.62	33.051	6.78		33.5	0.01	26.08	175	4.63	33.75	26.75	132	0.38
109	5.56	33.114	6.68		34.1	0.02	26.14	200	4.29	33.77	26.80	127	0.41
124	5.51	33.331	5.99		38.9	0.02	26.32	250	3.94	33.84	26.89	119	0.47
149	4.95	33.697	5.00		52.4	0.01	26.67	300	3.79	33.91	26.96	113	0.53
174	4.64	33.744	4.66		56.4	0.00	26.74						
199	4.30	33.769	4.05		64.9	0.00	26.80						
248	3.95	33.833	3.11		81.9	0.01	26.89						
298	3.79	33.906	2.49		84.6	0.01	26.96						
300	3.79a)	33.909a)	-		-	-	(26.96)						

CGS ST. CATHARINES; September 13, 1958; 1914, 1947 GCT; 50°00'N, 145°00'W; wind, 320°, force 5; weather, intermittent slight drizzle; sea, moderate. 309

0	12.70	32.613	6.42	0.99	10.7	0.12	24.63	0	12.70	32.61	24.63	332	0.00
10	12.48	32.608	6.34	0.90	11.1	0.12	24.66	10	12.48	32.61	24.66	329	0.03
20	12.44	32.611	6.40	0.70	7.6	0.10	24.67	20	12.44	32.61	24.67	328	0.07
30	12.44	32.610	6.08	0.62	10.6	0.11	24.67	30	12.44	32.61	24.67	328	0.10
50	7.33	32.972	6.99	1.28	26.1	0.14	25.80	50	7.33	32.97	25.80	221	0.16
75	6.31	33.096	6.97	1.63	27.2	0.67	26.03	75	6.31	33.10	26.03	199	0.21
100	5.55	33.048	6.71	1.55	27.2	0.02	26.09	100	5.55	33.05	26.09	194	0.26
125	5.51	33.360	5.62	1.58	33.6	0.00	26.34	125	5.51	33.36	26.34	171	0.30
150	4.80	33.717	3.62u	1.87	48.3	0.00	26.70	150	4.80	33.72	26.70	136	0.34
175	4.41	33.759	4.24	2.40	57.2	0.01	26.78	175	4.41	33.76	26.78	129	0.38
200	4.17	33.780	3.79	2.20	63.8	0.02	26.83	200	4.17	33.84	26.87	121	0.41
250	3.98	33.838	2.96	2.27	70.7	0.01	26.90	250	3.98	33.78	26.84	124	0.47
301	3.78	33.936	2.34	2.68	79.5	0.01	26.98	300	3.78	33.93	26.98	111	0.53
399	3.72	34.017	1.49	2.60	95.0	-	27.06	400	3.72	34.02	27.06	105	0.64
499	3.68	34.114	0.99	2.34	108.0	-	27.14	500	3.68	34.11	27.14	98	0.74
749	3.26	34.290	0.60	3.39	128.0	-	27.32	600	3.57	34.20	27.21	91	0.83
999	2.88	34.395	0.62	3.82	141.0	-	27.44	700	3.38	34.26	27.28	85	0.92
1249	2.54	34.460	0.66	3.19	151.0	-	27.52	800	3.18	34.32	27.35	80	1.01
								1000	2.88	34.40	27.44	72	1.16
								1200	2.60	34.45	27.50	66	1.30

CGS ST. CATHARINES; September 16, 1958; 1950, 2136 GCT; 50°00'N, 145°16'W; wind, 270°, force 3; weather, overcast; sea, moderate. 310

198	4.32	33.782	3.65	2.42	58.1	26.81	b)
248	3.94	33.854	2.89	2.31	69.4	26.90	
298	3.76	33.900	2.09	2.99	83.7	26.96	
347	3.78	33.969	1.55	2.47	88.2	26.98	
397	3.76	34.026	1.13	2.53	96.7	27.06	
447	3.70	34.076	0.77	2.51	101.0	27.10	
496	3.65	34.119	0.96	3.38	108.0	27.14	
546	3.62	34.160	0.72	3.41	113.0	27.18	
595	3.56	34.206	0.60	2.65	117.0	27.22	
645	3.41	34.242	0.62	3.26	123.0	27.26	
691	3.33	34.264	0.53	3.39	127.0	27.29	
789	3.14	34.319	0.56	3.31	133.0	27.35	
887	2.98	34.362	0.54	3.21	138.0	27.40	
985	2.86	34.392	0.56	3.00	143.0	27.43	
1083	2.72	34.425	0.56	2.07	141.0	27.47	
1229	2.55	34.459	0.60	3.15	153.0	27.52	

a) Value extrapolated by computer.

b) For data at standard depths see next page, Station 310 (Composite), a composite of Stations 310 and 311.

POG

P-58-3

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

311

CGS ST. CATHARINES; September 17, 1958; 1933, 1945 GCT; 50°00'N, 145°00'W; wind, 020°, force 8; weather, intermittent slight drizzle; sea, rough.

0	11.50	32.616	6.83	13.0	0.11	24.85	a)	
8	11.59	32.611	6.97	12.1	0.09	24.83		
23	11.57	32.610	6.60	13.9	0.10	24.84		
38	11.58	32.611	6.63	13.9	0.10	24.83		
54	7.37	32.970	7.87	28.1	0.12	25.79		
57	6.93	33.003	8.49	25.1	0.16	25.88		
52b)	7.22	32.980	7.08	26.5	0.13	25.82		
56	6.90	32.993	7.94	27.5	0.14	25.88		
60	6.72	32.989	6.92	30.9	0.13	25.90		
66	6.56	33.036	7.27	26.6	0.29	25.96		
70	6.27	33.028	7.65	26.3	0.58	25.98		
79	5.86	33.030	6.99	29.4	0.43	26.04		
96	5.40	33.114	6.63	35.1	0.00	26.16		
105	5.45	33.385	6.14	38.5	0.00	26.38		
118	5.37	33.444	6.47	40.5	0.00	26.42		
138	4.92	33.679	5.53	47.4	0.01	26.66		
163	4.57	33.732	4.86	52.5	0.00	26.74		

310 (COMPOSITE)

CGS ST. CATHARINES; September 16-17, 1958; missing GCT; 50°00'N, 145°16'W (50°00'N, 145°00'W); wind, missing; weather, missing; sea, missing.[c]

0	11.50	32.616	24.85	0	11.50	32.62	24.85	311	0.00	
8	11.59	32.611	24.83	10	11.60	32.61	24.83	313	0.03	
23	11.57	32.610	24.84	20	11.59	32.61	24.83	313	0.06	
38	11.58	32.611	24.83	30	11.57	32.61	24.84	313	0.09	
54	7.37	32.970	25.79	50	8.83	32.85	25.48	252	0.15	
70	6.27	33.028	25.98	75	6.01	33.05	26.03	200	0.21	
96	5.40	33.114	26.16	100	5.35	33.16	26.20	184	0.26	
118	5.37	33.444	26.42	125	5.26	33.53	26.51	155	0.30	
138	4.92	33.679	26.66	150	4.72	33.74	26.73	134	0.34	
163	4.57	33.732	26.74	175	4.45	33.75	26.77	130	0.37	
198	4.32	33.782	26.81	200	4.31	33.78	26.81	126	0.40	
248	3.94	33.854	26.90	250	3.93	33.86	26.91	118	0.46	
298	3.76	33.900	26.96	300	3.76	33.90	26.96	113	0.52	
397	3.76	34.026	27.06	400	3.76	34.03	27.06	104	0.63	
496	3.65	34.119	27.14	500	3.65	34.12	27.15	97	0.73	
595	3.56	34.206	27.22	600	3.55	34.21	27.22	90	0.83	
691	3.33	34.264	27.29	700	3.31	34.27	27.30	84	0.91	
789	3.14	34.319	27.35	800	3.12	34.32	27.36	78	1.00	
985	2.86	34.392	27.43	1000	2.84	34.40	27.44	71	1.15	
1229	2.55	34.459	27.52	1200	2.58	34.45	27.51	66	1.28	

a) See Station 310 (Composite) for composite of Stations 310 and 311.

b) Overlapping casts; reconciliation of property curves when necessary.

c) This station is a composite of observed data from Stations 310 and 311.

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

CGS ST. CATHARINES; September 22, 1958; 1905, missing, 2106 GCT; 50°00'N, 145°16'W; wind, 210°, force 5; weather, overcast; sea, moderate. 312

0	11.30	32.606	6.62	1.26	12.5	0.09	24.88	0	11.30	32.61	24.88	308	0.00
10	11.34	32.614	6.69	1.00	9.6	0.11	24.88	10	11.34	32.61	24.88	308	0.03
20	11.31	32.615	6.57	1.03	10.1	0.10	24.89	20	11.31	32.61	24.89	308	0.06
30	11.33	32.618	6.28	0.77	9.0	0.09	24.89	30	11.33	32.62	24.89	308	0.09
50	7.27	32.989	7.01	0.97	13.0	0.12	25.82	50	7.27	32.99	25.82	219	0.15
								75	5.79	33.07	26.08	195	0.20
75	5.79	33.072	7.02	1.27	14.5	-	26.08	100	5.45	33.34	26.33	171	0.24
85	5.61	33.107	6.34	1.41	-	0.00	26.13	125	5.19	33.60	26.56	149	0.28
90	5.56	33.125	6.82	1.67	-	0.02	26.15	150	4.70	33.76	26.75	132	0.32
100	5.45	33.344	6.26	1.46	17.3	0.00	26.33	175	4.34	33.77	26.80	127	0.35
110	5.42	33.398	6.22	1.69	-	0.01	26.38	200	4.14	33.80	26.84	124	0.38
125	5.19	33.596	5.47	1.91	19.9	0.00	26.56	250	3.85	33.86	26.92	116	0.44
150	4.70	33.756	4.77	2.07	-	0.00	26.75	300	3.70	33.92	26.98	110	0.50
175	4.34	33.774	4.57	2.21	27.7	0.01	26.80	400	3.71	34.03	27.07	103	0.61
200	4.14	33.799	3.77	2.49	-	0.01	26.84	500	3.63	34.13	27.16	96	0.71
250	3.85	33.860	2.96	2.58	-	0.02	26.92	600	3.50	34.22	27.24	89	0.80
300	3.70	33.925	1.97	2.79	-	0.01	26.98	700	3.30	34.28	27.30	83	0.89
								800	3.10	34.33	27.36	78	0.97
394	3.71	34.025	1.40	2.95	-	-	27.06						
493	3.64	34.128	0.97	3.05	-	-	27.15						
742	3.20	34.298	0.66	3.04	-	-	27.33						
990	2.81	34.394	0.81	3.15	-	-	27.44						

CGS ST. CATHARINES; November 3, 1958; 1923 GCT; 50°00'N, 145°00'W; wind, 240°, force 3; weather, partly cloudy; sea, rough. 401

0	8.50	32.689				0.30	25.41	0	8.50	32.69	25.41	258	0.00
10	8.66	32.655				0.26	25.36	10	8.66	32.66	25.36	263	0.03
30	8.65	32.647				0.26	25.35	20	8.71	32.64	25.34	265	0.05
49	8.64	32.653				0.28	25.36	30	8.65	32.65	25.35	264	0.08
69	7.81	32.812				0.41	25.61	50	8.62	32.66	25.37	263	0.13
79	6.76	32.969				0.63	25.87	75	7.23	32.90	25.76	226	0.19
89	6.05	33.066				0.58	26.04	100	5.42	33.14	26.18	186	0.24
98	5.49	33.125				0.00	26.16	125	5.44	33.47	26.43	162	0.29
108	5.30	33.200				0.00	26.24	150	5.00	33.76	26.72	135	0.33
123	5.44	33.439				0.00	26.41	175	4.35	33.76	26.79	128	0.36
148	5.04	33.751				0.00	26.70	200	4.12	33.78	26.83	125	0.39
172	4.40	33.760				0.00	26.78	250	3.71	33.83	26.91	117	0.45
197	4.15	33.776				0.00	26.82	300	3.78	33.93	26.98	111	0.51
246	3.72	33.827				0.00	26.90						
295	3.75	33.921				0.00	26.98						
300	3.78a)	33.933a)				-	(26.98)						

CGS ST. CATHARINES; November 6, 1958; 1926 GCT; 50°00'N, 144°44'W; wind, 250°, force 6; weather, partly cloudy; sea, rough. 402

0	8.90	32.840					25.47	0	8.90	32.84	25.47	252	0.00
10	8.71	32.662					25.36	10	8.71	32.66	25.36	263	0.03
24	8.70	32.661					25.36	20	8.67	32.63	25.34	265	0.05
49	8.69	32.670					25.37	30	8.70	32.66	25.36	263	0.08
73	6.47	33.005					25.94	50	8.64	32.68	25.38	262	0.13
98	5.40	33.176					26.21	75	6.34	33.03	25.97	205	0.19
122	5.22	33.534					26.51	100	5.35	33.20	26.23	181	0.24
147	4.87	33.753					26.72	125	5.19	33.57	26.54	151	0.28
150	4.82a)	33.769a)					(26.74)	150	4.86	33.77	26.74	133	0.32

a) Value extrapolated by computer.

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
403	CGS ST. CATHARINES; November 8, 1958; 1926 GCT; 49°50'N, 145°16'W; wind, 270°, force 7; weather, cloudy; sea, rough.												
0	7.50	32.808			0.33		25.65	0	7.50	32.81	25.65	235	0.00
10	8.33	32.716			0.27		25.46	10	8.33	32.72	25.46	254	0.02
24	8.34	32.704			0.27		25.44	20	8.47	32.69	25.42	257	0.05
49	8.32	32.701			0.30		25.45	30	8.34	32.70	25.44	255	0.08
73	5.72	33.136			0.00		26.14	50	8.26	32.71	25.46	254	0.13
97	5.41	33.267			0.00		26.28	75	5.61	33.16	26.17	186	0.18
122	5.56	33.659			0.00		26.57	100	5.40	33.30	26.31	174	0.23
146	5.12	33.771			0.00		26.71	125	5.54	33.69	26.59	147	0.27
171	4.53	33.773			-		26.78	150	5.03	33.78	26.73	134	0.30
195	4.29	33.795			-		26.82	175	4.47	33.78	26.79	129	0.34
292	3.76	33.880			-		26.94	200	4.25	33.80	26.83	125	0.37
359	3.78	33.965			-		27.01	250	3.90	33.84	26.90	118	0.43
451	3.77	34.084			-		27.10	300	3.75	33.89	26.95	114	0.49
699	3.38	34.257			-		27.28	400	3.78	34.02	27.05	105	0.60
947	2.95	34.371			-		27.41	500	3.73	34.14	27.15	97	0.70
1195	2.59	34.450			-		27.50	600	3.60	34.21	27.22	90	0.80
1200	2.58a)	34.451a)			-		(27.51)	700	3.38	34.26	27.28	85	0.88
								800	3.21	34.31	27.34	80	0.97
								1000	2.87	34.39	27.43	72	1.12
								1200	2.58	34.45	27.51	66	1.26
404	CGS ST. CATHARINES; November 14, 1958; 2111, 1944, 2028 GCT; 50°00'N, 145°16'W; wind, 150°, force 2; weather, cloudy; sea, slight.												
0	7.50	32.796					25.64	0	7.50	32.80	25.64	236	0.00
10	7.57	32.779					25.61	10	7.57	32.78	25.61	238	0.02
25	7.58	32.772					25.61	20	7.59	32.77	25.61	239	0.05
50	7.55	32.794					25.63	30	7.58	32.77	25.61	239	0.07
75	5.84	33.111					26.10	50	7.55	32.79	25.63	238	0.12
100	5.39	33.298					26.30	75	5.84	33.11	26.10	193	0.17
125	5.27	33.724					26.66	100	5.39	33.30	26.30	174	0.22
150	4.81	33.796					26.76	125	5.27	33.72	26.66	141	0.26
174	4.34	33.782					26.81	150	4.81	33.80	26.76	130	0.29
199	4.13	33.810					26.85	175	4.33	33.78	26.81	127	0.33
299	3.77	33.943					26.99	200	4.12	33.81	26.85	122	0.36
								250	3.85	33.87	26.93	116	0.42
399	3.78	34.064					27.09	300	3.77	33.94	26.99	110	0.48
498	3.63	34.160					27.18	400	3.78	34.07	27.09	102	0.58
748	3.23	34.334					27.35	500	3.63	34.16	27.18	94	0.68
								600	3.47	34.24	27.26	87	0.77
992	2.84	34.433					27.47	700	3.31	34.31	27.33	81	0.86
1238	2.52	34.493					27.54	800	3.15	34.36	27.38	76	0.94
								1000	2.83	34.44	27.47	68	1.08
								1200	2.56	34.49	27.54	63	1.21
405	CGS ST. CATHARINES; November 18, 1958; 1924 GCT; 49°50'N, 145°00'W; wind, 290°, force 6; weather, moderate to heavy snow showers; sea, rough.												
0	7.00	32.772					25.69	0	7.00	32.77	25.69	231	0.00
25	7.08	32.759					25.67	10	7.04	32.76	25.68	232	0.02
49	7.09	32.764					25.67	20	7.07	32.76	25.67	233	0.05
69	6.59	32.932					25.87	30	7.09	32.76	25.67	234	0.07
79	5.56	33.190					26.20	50	7.08	32.77	25.68	233	0.12
89	5.46	33.272					26.28	75	6.03	33.07	26.05	198	0.17
99	5.52	33.452					26.41	100	5.52	33.47	26.43	162	0.22
109	5.41	33.637					26.57	125	5.06	33.77	26.72	135	0.25
125	5.06	33.769					26.72	150	4.64	33.77	26.77	130	0.29
150	4.64	33.773					26.77	175	4.26	33.79	26.82	126	0.32
176	4.25	33.787					26.82	200	4.07	33.80	26.85	123	0.35
201	4.07	33.804					26.85	250	3.85	33.85	26.91	117	0.41
251	3.85	33.852					26.91	300	3.75	33.91	26.97	112	0.47
301	3.75	33.910					26.97						

a) Value extrapolated by computer.

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

406

CGS ST. CATHARINES; November 21, 1958; 2046, 1904 GCT; 50°00'N, 144°44'W; wind, 310°, force 4; weather, cloudy; sea, rough.

0	6.80	32.794	25.73	0	6.80	32.79	25.73	227	0.00
10	6.76	32.755	25.71	10	6.76	32.75	25.71	230	0.02
25	6.79	32.750	25.70	20	6.77	32.74	25.70	231	0.05
50	6.79	32.746	25.70	30	6.79	32.75	25.70	231	0.07
75	6.79	32.753	25.70	50	6.79	32.75	25.70	231	0.12
100	5.32	33.414	26.40	75	6.79	32.75	25.70	231	0.17
125	5.06	33.715	26.67	100	5.32	33.41	26.40	164	0.22
150	4.65	33.772	26.76	125	5.06	33.72	26.67	139	0.26
176	4.25	33.776	26.81	150	4.65	33.77	26.76	131	0.30
202	4.01	33.804	26.86	175	4.26	33.78	26.81	126	0.33
304	3.73	33.934	26.99	200	4.02	33.80	26.85	122	0.36
				250	3.75	33.86	26.93	115	0.42
394	3.75	34.023	27.06	300	3.72	33.93	26.98	110	0.48
492	3.69	34.139	27.16	400	3.75	34.03	27.06	104	0.58
743	3.22	34.301	27.33	500	3.68	34.15	27.16	95	0.68
995	2.85	34.388	27.43	600	3.54	34.23	27.24	88	0.78
1246	2.55	34.460	27.52	700	3.33	34.29	27.31	83	0.86
				800	3.13	34.33	27.36	78	0.95
				1000	2.84	34.39	27.43	72	1.10
				1200	2.60	34.45	27.50	66	1.24

407A

CGS ST. CATHARINES; November 26, 1958; 1918 GCT; 50°00'N, 145°00'W; wind, direction missing, force 1; weather, intermittent slight rain; sea, indeterminate.

0	6.80	32.746	25.69	0	6.80	32.75	25.69
10	6.87	32.766	25.70	10	6.87	32.77	25.70
25	6.87	32.763	25.70	20	6.88	32.77	25.70
50	6.87	32.761	25.70	30	6.87	32.76	25.70
70	6.87	32.769	25.70	50	6.87	32.76	25.70
80	5.97	33.055	26.04	75	6.49	32.89	25.85
90	5.38	33.210	26.24	100	5.21	33.42	26.42
100	5.21	33.418	26.42	125	4.98	33.69	26.66
110	5.10	33.560	26.55	150	4.51	33.76	26.77
125	4.98	33.692	26.66	175	4.25	33.77	26.81
150	4.51	33.762	26.77	200	4.03	33.79	26.85
175	4.25	33.773	26.81	250	3.77	33.84	26.91
200	4.03	33.794	26.85	300	3.74	33.90	26.96
301	3.66	33.923	26.99				

407B

CGS ST. CATHARINES; November 27, 1958; 1922 GCT; 50°00'N, 145°00'W; wind, 250°, force 4; weather, partly cloudy; sea, moderate.

246	3.94	33.872	26.92	a)
295	3.75	33.893	26.95	
341	3.74	33.957	27.01	
390	3.76	34.020	27.05	
440	3.73	34.068	27.09	
490	3.68	34.113	27.14	
539	3.65	34.160	27.18	
590	3.61	34.195	27.21	
638	3.48	34.224	27.24	
688	3.38	34.283	27.30	

a) For data at standard depths see next page, Station 407 (Composite), a composite of Stations 407A and 407B.

POG P-58-4

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

407 (COMPOSITE) CGS ST. CATHARINES; November 26-27, 1958; missing GCT; 50°00'N, 145°00'W; wind, missing; weather, missing; sea, missing.[a]

0	6.80	32.746	25.69	0	6.80	32.75	25.69	231	0.00
10	6.87	32.766	25.70	10	6.87	32.77	25.70	230	0.02
25	6.87	32.763	25.70	20	6.88	32.77	25.70	230	0.05
50	6.87	32.761	25.70	30	6.87	32.76	25.70	231	0.07
70	6.87	32.769	25.70	50	6.87	32.76	25.70	231	0.12
80	5.97	33.055	26.04	75	6.49	32.89	25.85	217	0.17
90	5.38	33.210	26.24	100	5.21	33.42	26.42	163	0.22
100	5.21	33.418	26.42	125	4.98	33.69	26.66	140	0.26
110	5.10	33.560	26.55	150	4.51	33.76	26.77	130	0.29
125	4.98	33.692	26.66	175	4.25	33.77	26.81	126	0.32
150	4.51	33.762	26.77	200	4.03	33.79	26.85	123	0.36
175	4.25	33.773	26.81	250	3.77	33.84	26.91	117	0.42
200	4.03	33.794	26.85	300	3.74	33.90	26.96	113	0.48
295	3.75	33.893	26.95	400	3.76	34.03	27.06	104	0.58
341	3.74	33.957	27.01	500	3.67	34.12	27.14	97	0.68
390	3.76	34.020	27.05	600	3.59	34.20	27.22	91	0.78
490	3.68	34.113	27.14	700	3.34	34.29	27.31	82	0.87
590	3.61	34.195	27.21						
688	3.38	34.283	27.30						
700	3.34b)	34.294b)	(27.31)						

408A CGS ST. CATHARINES; November 29, 1958; 2010, 1915 GCT; 50°00'N, 145°00'W; wind, 320°, force 4; weather, partly cloudy; sea, rough.

0	6.80	32.848	25.77	0	6.80	32.85	25.77	223	0.00
10	6.77	32.812	25.75	10	6.77	32.81	25.75	226	0.02
25	6.75	32.792	25.74	20	6.75	32.79	25.74	227	0.04
50	6.76	32.793	25.74	30	6.75	32.79	25.73	227	0.07
75	6.74	32.793	25.74	50	6.76	32.79	25.74	227	0.11
100	5.32	33.377	26.38	75	6.74	32.79	25.74	227	0.17
125	5.06	33.745	26.70	100	5.32	33.38	26.38	167	0.22
150	4.71	33.767	26.75	125	5.06	33.75	26.70	137	0.26
175	4.32	33.792	26.82	150	4.71	33.77	26.75	132	0.29
200	4.01	33.811	26.86	175	4.32	33.79	26.82	126	0.32
250	3.75	33.844	26.91	200	4.01	33.81	26.86	121	0.36
299	3.71	33.909	26.97	250	3.75	33.84	26.91	117	0.42
				300	3.71	33.91	26.97	112	0.47
399	3.73	34.087	27.11	400	3.73	34.09	27.11	99	0.58
500	3.69	34.157	27.17	500	3.69	34.16	27.17	95	0.68
750	3.22	34.314	27.34	600	3.57	34.22	27.23	89	0.77
1000	2.83	34.397	27.44	700	3.36	34.28	27.30	83	0.86
1250	2.53	34.473	27.53	800	3.14	34.34	27.37	78	0.94
				1000	2.83	34.40	27.44	71	1.09
				1200	2.58	34.46	27.51	65	1.23

a) This station is a composite of observed data from Stations 407A and 407B.
b) Value extrapolated by computer.

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

CGS ST. CATHARINES; December 3, 1958; 2028, 1925 GCT; 50°00'N, 145°00'W; wind, 160°, force 2; weather, cloudy; sea, calm. 408B

0	6.55a)	32.820	25.78	0	6.55	32.82	25.78	222	0.00
5	6.55a)	32.781	25.75	10	6.53	32.78	25.76	225	0.02
10	6.53a)	32.779	25.76	20	6.52	32.80	25.77	224	0.04
20	6.52a)	32.795	25.77	30	6.51	32.80	25.78	223	0.07
50	6.50	32.793	25.77	50	6.50	32.79	25.77	224	0.11
150	4.79	32.784	25.97	75	6.31	32.79	25.79	222	0.17
300	3.73	33.938	26.99	100	5.96	32.79	25.83	218	0.22
500	3.65	34.153	27.17	125	5.45	32.79	25.89	213	0.28
				150	4.79	32.78	25.97	206	0.33
746	3.20	34.305	27.33	175	4.49	32.88	26.07	196	0.38
991	2.83	34.403	27.45	200	4.24	33.01	26.21	184	0.43
1486	2.25	34.519	27.59	250	3.88	33.40	26.55	152	0.51
1892	1.98	34.582	27.66	300	3.73	33.94	26.99	110	0.58
2000	1.94b)	34.594b)	(27.67)	400	3.50	34.23	27.25	86	0.68
				500	3.65	34.15	27.17	94	0.77
				600	3.51	34.23	27.24	88	0.86
				700	3.31	34.29	27.31	82	0.95
				800	3.11	34.33	27.36	78	1.03
				1000	2.82	34.41	27.45	70	1.18
				1200	2.56	34.47	27.52	64	1.32
				1500	2.24	34.52	27.59	58	1.50
				2000	1.94	34.59	27.67	51	1.78

CGS ST. CATHARINES; December 4, 1958; 1910 GCT; 50°00'N, 145°00'W; wind, 100°, force 8; weather, overcast; sea, very rough. 409

0	6.30	32.827	25.82	0	6.30	32.83	25.82	218	0.00
9	6.44	32.776	25.76	10	6.45	32.77	25.76	224	0.02
23	6.42	32.785	25.77	20	6.45	32.77	25.76	224	0.04
45	6.45	32.780	25.77	30	6.42	32.79	25.77	223	0.07
64	6.45	32.782	25.77	50	6.45	32.78	25.77	224	0.11
73	6.45	32.786	25.77	75	6.45	32.79	25.77	224	0.17
81	6.47	32.804	25.78	100	5.18	33.28	26.31	173	0.22
90	5.23	33.056	26.13	125	5.10	33.73	26.68	139	0.26
99	5.18	33.257	26.30	150	4.67	33.79	26.78	129	0.29
114	5.17	33.588	26.56	175	4.13	33.77	26.82	125	0.32
138	4.95	33.772	26.73	200	4.04	33.81	26.86	122	0.36
162	4.28	33.760	26.79	250	3.79	33.86	26.92	116	0.42
186	4.12	33.790	26.83	300	3.54	33.90	26.98	111	0.47
235	3.87	33.841	26.90						
284	3.62	33.886	26.96						
300	3.54b)	33.899b)	(26.98)						

a) From bathythermograph.
b) Value extrapolated by computer.

OBSERVED							COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	NO_2-N	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L	µg at/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

410 CGS ST. CATHARINES; December 7, 1958; 2013, 1925 GCT; 50°00'N, 145°00'W; wind, variable, force 2; weather, partly cloudy; sea, missing.

0	6.60	32.777	25.74	0	6.60	32.78	25.74	226	0.00
10	6.43	32.754	25.75	10	6.43	32.75	25.75	226	0.02
25	6.38	32.749	25.75	20	6.37	32.75	25.75	226	0.04
50	6.40	32.754	25.75	30	6.37	32.75	25.75	226	0.07
75	6.37	32.759	25.76	50	6.40	32.75	25.75	226	0.11
100	5.18	33.151	26.21	75	6.37	32.76	25.76	225	0.17
125	5.23	33.677	26.62	100	5.18	33.15	26.21	182	0.22
150	4.99	33.770	26.72	125	5.23	33.68	26.62	144	0.26
175	4.48	33.774	26.78	150	4.99	33.77	26.72	134	0.30
200	4.29	33.792	26.82	175	4.48	33.77	26.78	129	0.33
250	3.99	33.838	26.89	200	4.29	33.79	26.82	126	0.36
300	3.75	33.891	26.95	250	3.99	33.84	26.89	120	0.42
				300	3.75	33.89	26.95	114	0.48
401	3.75	34.032	27.06	400	3.75	34.03	27.06	104	0.59
502	3.65	34.137	27.16	500	3.65	34.14	27.16	96	0.69
745	3.25	34.288	27.32	600	3.52	34.22	27.23	89	0.79
998	2.85	34.292	27.36	700	3.34	34.27	27.29	84	0.88
1249	2.53	34.462	27.52	800	3.16	34.30	27.34	80	0.96
				1000	2.85	34.29	27.36	79	1.12
				1200	2.59	34.42	27.48	68	1.27

411 CGS ST. CATHARINES; December 11, 1958; 1949 GCT; 50°00'N, 145°00'W; wind, 190°, force 6; weather, missing; sea, missing.

0	6.60	32.786	25.75	0	6.60	32.79	25.75	225	0.00
10	6.52	32.762	25.74	10	6.52	32.76	25.74	226	0.02
24	6.50	32.758	25.74	20	6.49	32.76	25.74	226	0.04
49	6.52	32.758	25.74	30	6.50	32.76	25.74	226	0.07
69	6.52	32.768	25.75	50	6.52	32.76	25.74	227	0.11
78	6.52	32.785	25.76	75	6.52	32.78	25.76	226	0.17
88	6.39	32.784	25.78	100	5.39	33.13	26.17	187	0.22
98	5.52	33.071	26.11	125	5.18	33.69	26.64	142	0.26
108	5.01	33.335	26.38	150	4.78	33.78	26.75	132	0.30
122	5.18	33.650	26.61	175	4.41	33.77	26.79	128	0.33
147	4.82	33.770	26.74	200	4.18	33.80	26.83	124	0.36
173	4.43	33.768	26.78	250	3.94	33.85	26.90	118	0.42
199	4.19	33.795	26.83	300	3.73	33.90	26.96	112	0.48
250	3.94	33.854	26.90						
299	3.73	33.902	26.96						
300	3.73a)	33.903a)	(26.96)						

a) Value extrapolated by computer.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HMCS OSHAWA; March 11, 1958; 1809 GCT;[a] 47°25'N, 124°47'W; sounding, 102 fm; wind, 120°, 5 kt; weather, partly cloudy; sea, smooth.										1
0	10.50	30.507	7.80	23.39	0	10.50	30.51	23.39	450	0.00
10	10.25	31.003	7.63	23.82	10	10.25	31.00	23.82	410	0.04
20	10.85	32.231	6.53	24.67	20	10.85	32.23	24.67	328	0.08
30	10.75	32.540	6.47	24.93	30	10.75	32.54	24.93	304	0.11
50	10.70	32.713	6.15	25.07	50	10.70	32.71	25.07	291	0.17
75	10.41	32.877	5.78	25.25	75	10.41	32.88	25.25	275	0.24
100	8.37	33.637	3.56	26.17	100	8.37	33.64	26.17	187	0.30
125	7.92	33.780	3.30	26.35	125	7.92	33.78	26.35	170	0.35
150	7.72	33.852	2.89	26.43	150	7.72	33.85	26.43	163	0.39
175	7.41	33.904	2.84	26.52	175	7.41	33.90	26.52	155	0.43
HMCS OSHAWA; March 11, 1958; 2038 GCT; 47°26.5'N, 125°10'W; sounding, 350 fm; wind, 030°, 5 kt; weather, partly cloudy; sea, smooth.										2
0	9.80	32.457	7.67	25.02	0	9.80	32.46	25.02	294	0.00
10	9.76	32.432	7.73	25.01	10	9.76	32.43	25.01	296	0.03
30	9.65	32.419	7.91	25.02	20	9.71	32.42	25.01	296	0.06
50	9.69	32.452	6.83	25.04	30	9.65	32.42	25.02	296	0.09
75	9.51	32.994	5.82	25.49	50	9.69	32.45	25.04	294	0.15
100	9.03	33.337	4.80	25.83	75	9.51	32.99	25.49	252	0.22
125	8.57	33.524	4.19	26.05	100	9.03	33.34	25.83	219	0.28
150	8.43	33.669	3.55	26.19	125	8.57	33.52	26.05	199	0.33
175	8.01	33.798	3.15	26.35	150	8.43	33.67	26.19	186	0.38
200	7.57	33.875	2.35	26.47	175	8.01	33.80	26.35	171	0.42
225	7.29	33.926	2.77	26.55	200	7.57	33.88	26.47	160	0.46
250	7.03	33.964	2.39	26.62	225	7.29	33.93	26.55	152	0.50
275	6.87	33.978	2.17	26.65	250	7.03	33.96	26.62	146	0.54
300	6.56	34.007	1.93	26.72	300	6.56	34.01	26.72	138	0.61
400	5.76	34.062	1.31	26.86	400	5.76	34.06	26.86	125	0.74
500	5.29	34.098	1.00	26.95	500	5.29	34.10	26.95	117	0.87
600	4.60	34.186	0.54	27.10	600	4.60	34.19	27.10	104	0.98
HMCS OSHAWA; March 11, 1958; 2336 GCT; 47°28'N, 125°30'W; sounding, 790 fm; wind, 030°, 10 kt; weather, partly cloudy; sea, slight.										3
0	(9.94)b)	(32.523)b)	-	(25.05)	0	9.94	32.52	25.05	292	0.00
5	9.84	32.524	6.83	25.07	10	9.77	32.52	25.08	289	0.03
20	9.70	32.526	6.94	25.09	20	9.70	32.53	25.09	288	0.06
30	9.73	32.526	6.84	25.09	30	9.73	32.53	25.09	289	0.09
49	9.71	32.522	6.52	25.09	50	9.71	32.52	25.09	289	0.14
74	9.64	32.619	5.03	25.18	75	9.60	32.64	25.19	280	0.22
98	8.11	33.297	4.08	25.94	100	8.05	33.34	25.98	205	0.28
123	8.00	33.588	3.85	26.19	125	7.98	33.60	26.20	184	0.33
148	7.71	33.700	3.38	26.32	150	7.69	33.71	26.33	173	0.37
172	7.58	33.824	2.81	26.43	175	7.56	33.84	26.45	162	0.41
197	7.39	33.912	2.35	26.53	200	7.37	33.92	26.54	154	0.45
222	7.24	33.957	2.49	26.59	225	7.20	33.96	26.59	149	0.49
246	6.83	33.962	2.06	26.65	250	6.78	33.96	26.65	143	0.53
296	6.51	33.995	1.58	26.71	300	6.48	34.00	26.72	137	0.60
392	5.78	34.076	0.76	26.87	400	5.74	34.08	26.88	123	0.73
491	5.43	34.125	0.57	26.95	500	5.38	34.13	26.96	116	0.85
590	4.69	34.186	0.50	27.09	600	4.63	34.19	27.10	104	0.96
788	4.08	34.300	0.29	27.24	700	4.21	34.25	27.19	95	1.06
986	3.58	34.395	0.29	27.37	800	4.05	34.31	27.25	90	1.16
1000	(3.55)b)	(34.401)b)	-	(27.38)	1000	3.55	34.40	27.38	79	1.33

a) Although not indicated in the tabulation, two casts were usually made at a station, the first to a depth of 300 meters. (When the water depth limited the cast to 1000 meters or less, a single cast was made.) The time reported is the time of the messenger release of the shallow cast. The deeper cast was made 45 to 60 minutes later.

b) Value extrapolated by three-point parabolic method.

POG

NP-58-I

	OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
	Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
	m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
4	HMCS OSHAWA; March 12, 1958; 0445 GCT; 47°30'N, 126°05'W; sounding, 900 fm; wind, 340°, 15 kt; weather, partly cloudy; sea, smooth.										
	0	(9.25)a)	(32.436)a)	-	(25.10)	0	9.25	32.44	25.10	288	0.00
	5	9.26	32.434	7.17	25.09	10	9.26	32.43	25.09	288	0.03
	20	9.25	32.434	7.06	25.09	20	9.25	32.43	25.09	288	0.06
	29	9.21	32.438	7.18	25.10	30	9.21	32.44	25.10	287	0.09
	49	9.23	32.446	7.00	25.11	50	9.22	32.45	25.11	287	0.14
	74	8.80	32.792	6.34	25.44	75	8.77	32.81	25.47	254	0.21
	98	7.74	33.459	4.56	26.12	100	7.70	33.49	26.16	188	0.27
	123	7.72	33.608	4.05	26.24	125	7.72	33.62	26.25	179	0.32
	147	7.73	33.793	3.16	26.39	150	7.70	33.81	26.40	166	0.36
	172	7.33	33.850	3.28	26.49	175	7.29	33.86	26.50	157	0.40
	196	7.08	33.881	3.39	26.55	200	7.05	33.89	26.56	152	0.44
	221	6.91	33.934	3.11	26.61	225	6.86	33.94	26.62	146	0.48
	245	6.56	33.928	2.96	26.66	250	6.49	33.93	26.67	142	0.51
	294	5.91	33.997	1.88	26.79	300	5.84	34.00	26.81	129	0.58
	392	5.16	34.014	1.51	26.90	400	5.12	34.02	26.90	120	0.70
	490	4.83	34.058	1.11	26.97	500	4.80	34.07	26.98	114	0.82
	588	4.55	34.168	0.67	27.09	600	4.52	34.18	27.10	103	0.93
	785	3.97	34.288	0.57	27.25	700	4.22	34.25	27.19	95	1.03
	970	3.56	34.400	0.49	27.38	800	3.93	34.30	27.26	89	1.13
	1000	(3.51)a)	(34.418)a)	-	(27.40)	1000	3.51	34.42	27.40	77	1.29
5	HMCS OSHAWA; March 12, 1958; 2155 GCT; 47°35'N, 127°21'W; sounding, 1396 fm; wind, 010°, 5 kt; weather, partly cloudy; sea, slight.										
	0	(8.72)a)	(32.431)a)	-	(25.17)	0	8.72	32.43	25.17	280	0.00
	5	8.73	32.426	6.79	25.17	10	8.73	32.42	25.17	281	0.03
	20	8.73	32.421	6.72	25.16	20	8.73	32.42	25.16	281	0.06
	30	8.71	32.426	6.73	25.17	30	8.71	32.43	25.17	281	0.08
	50	8.75	32.430	6.60	25.17	50	8.75	32.43	25.17	282	0.14
	75	7.31	32.824	6.12	25.69	75	7.31	32.82	25.69	232	0.21
	100	7.31	33.300	5.02	26.06	100	7.31	33.30	26.06	197	0.26
	125	7.28	33.597	4.35	26.30	125	7.28	33.60	26.30	175	0.31
	150	7.22	33.798	3.67	26.46	150	7.22	33.80	26.46	160	0.35
	175	7.07	33.891	3.27	26.56	175	7.07	33.89	26.56	151	0.39
	200	6.87	33.926	3.16	26.61	200	6.87	33.93	26.61	146	0.43
	225	6.63	33.954	2.51	26.67	225	6.63	33.95	26.67	142	0.46
	250	6.35	33.963	2.34	26.71	250	6.35	33.96	26.71	138	0.50
	300	6.00	33.994	1.83	26.78	300	6.00	33.99	26.78	131	0.56
	398	5.34	34.053	1.20	26.91	400	5.33	34.05	26.91	120	0.69
	497	4.92	34.122	0.74	27.01	500	4.91	34.12	27.01	111	0.81
	597	4.50	34.200	0.49	27.12	600	4.49	34.20	27.12	101	0.92
	797	3.93	34.321	0.34	27.28	700	4.16	34.27	27.21	93	1.01
	993	3.46	34.407	0.31	27.39	800	3.92	34.32	27.28	87	1.10
	1190	3.03	34.464	0.45	27.48	1000	3.44	34.41	27.39	77	1.27
	1487	2.49	34.528	0.76	27.58	1200	3.01	34.47	27.48	69	1.42
	1982	1.94	34.602	1.43	27.68	1500	2.47	34.53	27.58	60	1.62
	2000	(1.93)a)	(34.604)a)	-	(27.68)	2000	1.93	34.60	27.68	50	1.90

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	σ_t g/L	δ cl/ton	ΔD dyn m

6

HMCS OSHAWA; March 12, 1958; 2054 GCT; 47°41'N, 129°09'W; sounding, 1395 fm; wind, 060°, 12 kt; weather, partly cloudy; sea, smooth.

0	(8.80)a)	(32.409)a)	-	(25.15)	0	8.80	32.41	25.15	283	0.00
5	8.71	32.408	6.71	25.16	10	8.65	32.41	25.17	281	0.03
18	8.59	32.406	6.72	25.17	20	8.58	32.41	25.17	280	0.06
28	8.60	32.406	6.69	25.17	30	8.60	32.41	25.17	281	0.08
46	8.59	32.407	6.71	25.17	50	8.59	32.41	25.18	281	0.14
69	8.55	32.428	6.63	25.20	75	8.28	32.52	25.31	268	0.21
92	6.93	32.977	5.81	25.86	100	6.73	33.10	25.98	205	0.27
115	6.88	33.215	5.53	26.05	125	6.91	33.33	26.14	190	0.32
138	6.99	33.481	4.77	26.25	150	6.98	33.59	26.33	172	0.36
161	6.93	33.668	4.63	26.40	175	6.92	33.78	26.49	158	0.41
184	6.93	33.845	3.52	26.54	200	6.72	33.90	26.61	147	0.44
207	6.57	33.899	3.35	26.63	225	6.37	33.93	26.68	140	0.48
230	6.33	(33.935)b)	-	(26.69)	250	6.13	33.95	26.73	136	0.52
275	5.89	33.956	2.26	26.76	300	5.69	33.97	26.80	129	0.58
394	5.17	34.038	1.38	26.92	400	5.14	34.04	26.92	118	0.71
493	4.71	34.180	0.97	27.08	500	4.68	34.19	27.09	104	0.82
592	4.41	34.197	0.53	27.13	600	4.39	34.20	27.13	100	0.92
792	3.99	34.307	0.35	27.26	700	4.15	34.24	27.19	95	1.02
991	3.42	34.394	0.31	27.38	800	3.97	34.31	27.26	89	1.11
1190	2.97	34.452	0.45	27.47	1000	3.40	34.40	27.39	77	1.28
1487	2.47	34.524	0.94	27.57	1200	2.95	34.45	27.48	69	1.43
1985	1.95	34.606	1.44	27.68	1500	2.45	34.53	27.58	60	1.63
2482	1.79	34.590	1.41	27.68	2000	1.94	34.61	27.68	50	1.91
2500	(1.79)a)	(34.588)a)	-	(27.68)	2500	1.79	34.59	27.68	52	2.17

7

HMCS OSHAWA; March 13, 1958; 0535 GCT; 47°49'N, 131°05'W; sounding, 1550 fm; wind, 030°, 10 kt; weather, partly cloudy; sea, slight.

0	(7.91)a)	(32.446)a)	-	(25.31)	0	7.91	32.45	25.31	268	0.00
5	7.90	32.444	6.76	25.31	10	7.89	32.44	25.31	268	0.03
20	7.89	32.444	6.87	25.31	20	7.89	32.44	25.31	268	0.05
30	7.90	32.448	6.83	25.31	30	7.90	32.45	25.31	268	0.08
50	7.90	32.440	6.74	25.30	50	7.90	32.44	25.30	269	0.14
74	7.89	32.448	6.76	25.31	75	7.88	32.45	25.31	268	0.20
99	7.46	32.582	6.43	25.48	100	7.43	32.60	25.49	251	0.27
124	6.46	33.167	5.48	26.07	125	6.44	33.18	26.09	195	0.32
149	6.22	33.447	5.02	26.32	150	6.22	33.46	26.33	172	0.37
174	6.31	33.734	4.38	26.54	175	6.31	33.74	26.54	152	0.41
199	6.34	33.859	3.58	26.63	200	6.33	33.86	26.63	144	0.45
224	6.05	33.914	3.04	26.71	225	6.04	33.92	26.71	137	0.48
248	5.83	(33.955)b)	-	(26.77)	250	5.81	33.96	26.77	131	0.52
297	5.37	34.001	2.06	26.86	300	5.35	34.00	26.87	123	0.58
367	5.04	33.981	1.65	26.89	400	4.89	34.00	26.92	119	0.70
460	4.62	34.080	0.90	27.01	500	4.47	34.12	27.06	106	0.82
554	4.29	34.158	0.67	27.11	600	4.15	34.19	27.15	98	0.92
742	3.84	34.276	0.44	27.25	700	3.92	34.25	27.22	92	1.02
929	3.38	34.360	0.32	27.36	800	3.70	34.31	27.29	86	1.11
1118	2.96	34.430	0.39	27.46	1000	3.22	34.39	27.40	76	1.27
1405	2.53	34.508	0.68	27.56	1200	2.81	34.46	27.49	68	1.42
1896	1.97	34.594	1.34	27.67	1500	2.40	34.53	27.58	59	1.61
2394	1.73	34.577	2.18	27.68	2000	1.89	34.60	27.68	50	1.89
2500	(1.72)a)	(34.560)a)	-	(27.66)	2500	1.72	34.56	27.66	53	2.15

a) Value extrapolated by three-point parabolic method.
b) Value interpolated by three-point parabolic method.

	OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
	Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
	m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
8	HMCS OSHAWA; March 13, 1958; 1405 GCT; 47°56'N, 132°56'W; sounding, 1400 fm; wind, 010°, 10 kt; weather, partly cloudy, lightning visible; sea, slight.										
	0	(7.87)a)	(32.455)a)	-	(25.32)	0	7.87	32.45	25.32	266	0.00
	5	7.86	32.454	6.61	25.32	10	7.85	32.45	25.32	266	0.03
	20	7.83	32.451	6.60	25.32	20	7.83	32.45	25.32	266	0.05
	30	7.82	32.449	6.63	25.32	30	7.82	32.45	25.32	267	0.08
	50	7.80	32.454	6.61	25.33	50	7.80	32.45	25.33	266	0.13
	75	7.76	32.462	6.64	25.34	75	7.76	32.46	25.34	266	0.20
	100	6.70	32.778	6.07	25.73	100	6.70	32.78	25.73	228	0.26
	125	6.16	33.143	5.66	26.09	125	6.16	33.14	26.09	195	0.32
	149	5.95	33.406	5.11	26.32	150	5.94	33.42	26.33	172	0.36
	174	5.83	33.684	4.56	26.56	175	5.83	33.69	26.56	150	0.40
	199	5.84	33.826	4.07	26.67	200	5.84	33.83	26.67	140	0.44
	224	5.72	33.860	3.77	26.71	225	5.71	33.86	26.71	137	0.48
	249	5.52	33.880	3.27	26.75	250	5.51	33.88	26.75	133	0.51
	299	5.14	33.929	2.31	26.83	300	5.13	33.93	26.83	126	0.57
	384	4.56	33.983	1.44	26.94	400	4.47	34.00	26.96	114	0.70
	481	4.08	34.066	0.95	27.06	500	4.02	34.08	27.08	104	0.80
	578	3.88	34.138	0.64	27.14	600	3.84	34.15	27.15	97	0.91
	776	3.62	34.286	0.40	27.28	700	3.70	34.23	27.23	91	1.00
	971	3.15	34.367	0.36	27.39	800	3.57	34.30	27.29	85	1.09
	1172	2.84	34.436	0.40	27.47	1000	3.09	34.38	27.40	75	1.25
	1463	2.40	34.514	0.71	27.57	1200	2.80	34.44	27.48	68	1.40
	1955	1.91	34.592	1.36	27.67	1500	2.35	34.52	27.58	59	1.59
	2235	1.82	34.625	1.69	27.71	2000	1.89	34.60	27.68	50	1.87
9	HMCS OSHAWA; March 13, 1958; 2306 GCT; 48°03'N, 134°44'W; sounding, 2200 fm; wind, 030°, 15 kt; weather, clear; sea, moderate.										
	0	(7.96)a)	(32.461)a)	-	(25.31)	0	7.96	32.46	25.31	267	0.00
	5	7.90	32.463	6.64	25.32	10	7.85	32.46	25.33	266	0.03
	20	7.80	32.465	6.65	25.34	20	7.80	32.47	25.34	265	0.05
	30	7.81	32.464	6.62	25.33	30	7.81	32.46	25.33	265	0.08
	50	7.80	32.464	6.55	25.34	50	7.80	32.46	25.34	266	0.13
	75	7.72	32.475	6.66	25.36	75	7.72	32.47	25.36	264	0.20
	100	6.42	33.010	5.72	25.95	100	6.42	33.01	25.95	208	0.26
	125	6.16	33.522	4.91	26.39	125	6.16	33.52	26.39	166	0.31
	150	6.24	33.765	4.23	26.57	150	6.24	33.77	26.57	150	0.35
	175	6.08	33.809	4.37	26.62	175	6.08	33.81	26.62	145	0.38
	200	5.84	33.860	4.38	26.69	200	5.84	33.86	26.69	138	0.42
	225	5.61	33.883	4.10	26.74	225	5.61	33.88	26.74	134	0.45
	250	5.38	33.906	3.51	26.79	250	5.38	33.91	26.79	130	0.49
	300	5.06	33.931	2.89	26.84	300	5.06	33.93	26.84	125	0.55
	400	4.45	33.987	1.84	26.96	400	4.45	33.99	26.96	115	0.67
	501	4.10	34.062	1.24	27.05	500	4.10	34.06	27.05	106	0.78
	602	3.90	34.174	0.72	27.16	600	3.90	34.17	27.16	97	0.89
	803	3.58	34.315	0.32	27.31	700	3.73	34.26	27.24	89	0.98
	1004	3.12	34.406	0.30	27.42	800	3.58	34.31	27.30	84	1.07
	1206	2.76	34.464	0.44	27.50	1000	3.13	34.40	27.42	74	1.23
	1509	2.34	34.529	0.76	27.59	1200	2.77	34.46	27.50	67	1.37
	2013	1.89	34.605	1.18	27.69	1500	2.35	34.53	27.59	59	1.56
						2000	1.90	34.60	27.68	50	1.84

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

10

HMCS OSHAWA; March 14, 1958; 0748 GCT; 48°32'N, 133°26'W; sounding, 1950 fm; wind, 030°, 15 kt; weather, clear; sea, smooth.

0	(7.44)a)	(32.515)a)	-	(25.43)	0	7.44	32.51	25.43	256	0.00
5	7.42	32.516	6.98	25.43	10	7.41	32.52	25.43	256	0.03
20	7.39	32.521	6.96	25.44	20	7.39	32.52	25.44	255	0.05
30	7.39	32.526	6.85	25.44	30	7.39	32.53	25.44	255	0.08
50	7.28	32.543	6.83	25.47	50	7.28	32.54	25.47	253	0.13
75	7.12	32.556	6.84	25.50	75	7.12	32.56	25.50	250	0.19
100	6.39	32.941	6.18	25.90	100	6.39	32.94	25.90	212	0.25
125	5.91	33.332	5.58	26.27	125	5.91	33.33	26.27	178	0.30
150	6.13	33.639	4.73	26.48	150	6.13	33.64	26.48	158	0.34
175	6.18	33.782	4.23	26.59	175	6.18	33.78	26.59	148	0.38
200	5.91	33.866	3.82	26.69	200	5.91	33.87	26.69	139	0.42
225	5.50	33.885	3.74	26.76	225	5.50	33.89	26.76	132	0.45
250	5.25	33.950	2.70	26.84	250	5.25	33.95	26.84	125	0.48
300	4.68	33.919	2.58	26.88	300	4.68	33.92	26.88	121	0.54
381	4.38	34.009	1.60	26.98	400	4.31	34.03	27.00	110	0.66
476	4.02	34.084	1.01	27.08	500	3.97	34.11	27.10	101	0.77
572	3.92	34.186	0.58	27.17	600	3.87	34.21	27.19	94	0.87
764	3.44	34.287	0.48	27.30	700	3.64	34.27	27.26	87	0.96
957	3.15	34.375	0.38	27.39	800	3.37	34.30	27.32	82	1.04
1151	2.85	34.447	0.48	27.48	1000	3.08	34.39	27.41	74	1.20
1441	2.39	34.514	0.68	27.57	1200	2.77	34.46	27.50	67	1.34
1924	1.92	34.606	1.44	27.68	1500	2.31	34.53	27.59	58	1.54
2408	1.72	34.641	2.07	27.73	2000	1.87	34.62	27.70	49	1.81
2891	1.60	34.667	2.42	27.76	2500	1.69	34.65	27.73	46	2.05
3000	(1.58)a)	(34.672)a)	-	(27.76)	3000	1.58	34.67	27.76	45	2.28

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HMCS OSHAWA; March 14, 1958; 1526 GCT; 48°57'N, 132°13'W; sounding, 1620 fm; wind, 300°, 5 kt; weather, overcast; sea, smooth.

0	(7.58)a)	(32.488)a)	-	(25.39)	0	7.58	32.49	25.39	260	0.00
5	7.56	32.491	6.76	25.39	10	7.55	32.49	25.39	259	0.03
20	7.54	32.490	6.64	25.39	20	7.54	32.49	25.39	260	0.05
30	7.56	32.481	6.55	25.38	30	7.56	32.48	25.38	261	0.08
50	7.55	32.481	6.59	25.38	50	7.55	32.48	25.38	261	0.13
75	7.46	32.516	6.61	25.42	75	7.46	32.52	25.42	257	0.20
100	5.98	33.056	5.66	26.04	100	5.98	33.06	26.04	199	0.25
125	5.76	33.430	4.86	26.36	125	5.76	33.43	26.36	168	0.30
150	5.54	33.636	4.45	26.55	150	5.54	33.64	26.55	151	0.34
175	5.43	33.768	4.03	26.67	175	5.43	33.77	26.67	140	0.38
200	5.34	33.830	3.58	26.73	200	5.34	33.83	26.73	134	0.41
225	5.16	33.876	3.05	26.79	225	5.16	33.88	26.79	129	0.44
250	5.00	33.907	2.54	26.83	250	5.00	33.91	26.83	125	0.48
301	4.71	33.940	1.87	26.89	300	4.72	33.94	26.89	120	0.54
388	4.29	34.004	1.34	26.99	400	4.25	34.01	27.00	110	0.66
484	4.02	34.102	0.82	27.09	500	3.99	34.12	27.11	101	0.76
581	3.91	34.178	0.56	27.16	600	3.88	34.19	27.18	95	0.86
777	3.47	34.300	0.40	27.30	700	3.68	34.26	27.25	89	0.95
969	3.13	34.371	0.67	27.39	800	3.42	34.31	27.32	83	1.04
1163	2.86	34.452	0.50	27.48	1000	3.08	34.38	27.41	75	1.20
1455	2.32	34.512	0.72	27.58	1200	2.80	34.46	27.50	67	1.34
1946	1.90	34.603	1.38	27.68	1500	2.26	34.52	27.59	58	1.53
2436	1.70	34.645	2.04	27.73	2000	1.87	34.61	27.69	49	1.81
2500	(1.69)a)	(34.647)a)	-	(27.73)	2500	1.69	34.65	27.73	46	2.05

a) Value extrapolated by three-point parabolic method.

POG

NP-58-I

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
12	HMCS OSHAWA; March 14, 1958; 2333 GCT; 49°30'N, 130°58'W; sounding, 1375 fm; wind, 200°, 5 kt; weather, cloudy; sea, smooth.									
0	(7.91)a)	(32.454)a)	-	(25.31)	0	7.91	32.45	25.31	267	0.00
5	7.78	32.454	6.99	25.33	10	7.68	32.45	25.34	264	0.03
20	7.56	32.452	6.93	25.36	20	7.56	32.45	25.36	263	0.05
30	7.56	32.450	6.93	25.36	30	7.56	32.45	25.36	263	0.08
50	7.56	32.451	6.89	25.36	50	7.56	32.45	25.36	263	0.13
75	7.54	32.458	6.90	25.37	75	7.54	32.46	25.37	263	0.20
100	7.27	32.534	6.72	25.46	100	7.27	32.53	25.46	254	0.26
125	6.09	33.198	5.59	26.14	125	6.09	33.20	26.14	190	0.32
150	6.41	33.656	4.37	26.46	150	6.41	33.66	26.46	160	0.36
175	6.28	33.850	3.65	26.63	175	6.28	33.85	26.63	144	0.40
200	6.07	33.899	3.08	26.70	200	6.07	33.90	26.70	138	0.44
225	5.72	33.921	2.68	26.76	225	5.72	33.92	26.76	132	0.47
250	5.41	33.937	2.25	26.81	250	5.41	33.94	26.81	128	0.50
300	4.94	33.949	1.94	26.87	300	4.94	33.95	26.87	122	0.57
400	4.53	34.004	1.57	26.96	400	4.53	34.00	26.96	114	0.69
500	4.17	34.078	1.11	27.06	500	4.17	34.08	27.06	106	0.80
600	4.02	34.175	0.72	27.15	600	4.02	34.17	27.15	98	0.90
800	3.54	34.307	0.40	27.30	700	3.81	34.25	27.23	90	1.00
1000	3.20	34.390	0.31	27.40	800	3.54	34.31	27.30	84	1.08
1200	2.82	34.451	0.46	27.49	1000	3.20	34.39	27.40	76	1.25
1499	2.39	34.519	0.71	27.58	1200	2.82	34.45	27.49	68	1.39
1997	1.90	34.604	0.90	27.68	1500	2.39	34.52	27.58	60	1.59
2393	1.76	34.642	1.50	27.73	2000	1.90	34.60	27.68	50	1.87
2500	(1.76)a)	(34.648)a)	-	(27.73)	2500	1.76	34.65	27.73	47	2.11
13	HMCS OSHAWA; March 15, 1958; 0610 GCT; 49°48'N, 129°30'W; sounding, 815 fm; wind, 150°, 3 kt; weather, partly cloudy; sea, smooth.									
0	(8.76)a)	(31.434)a)	-	(24.39)	0	8.76	31.43	24.39	355	0.00
5	8.47	31.742	8.30	24.67	10	8.24	31.99	24.90	306	0.03
20	7.99	32.314	6.79	25.19	20	7.99	32.31	25.19	279	0.06
30	8.00	32.402	6.51	25.26	30	8.00	32.40	25.26	273	0.09
50	7.86	32.442	6.68	25.31	50	7.86	32.44	25.31	268	0.14
75	7.81	32.443	6.66	25.32	75	7.81	32.44	25.32	268	0.21
100	6.74	33.129	5.20	26.00	100	6.74	33.13	26.00	203	0.27
125	6.64	33.509	4.70	26.32	125	6.64	33.51	26.32	173	0.32
150	6.66	33.776	4.00	26.52	150	6.66	33.78	26.52	154	0.36
175	6.48	33.882	3.26	26.63	175	6.48	33.88	26.63	144	0.40
200	6.16	33.904	2.96	26.69	200	6.16	33.90	26.69	139	0.43
224	5.95	33.921	2.70	26.73	225	5.94	33.92	26.73	135	0.47
249	5.79	33.951	2.11	26.77	250	5.78	33.95	26.77	131	0.50
299	5.44	33.982	1.68	26.84	300	5.43	33.98	26.84	125	0.57
394	5.05	34.064	1.03	26.95	400	5.02	34.07	26.96	115	0.69
493	4.62	34.133	0.66	27.05	500	4.59	34.14	27.06	106	0.80
592	4.26	34.189	0.53	27.14	600	4.23	34.19	27.14	99	0.90
790	3.80	34.340	0.32	27.30	700	3.97	34.26	27.23	91	1.00
988	3.33	34.420	0.36	27.41	800	3.78	34.35	27.31	84	1.09
1188	2.90	34.461	0.48	27.49	1000	3.30	34.42	27.42	74	1.25
1388	2.49	34.514	0.75	27.56	1200	2.87	34.46	27.49	68	1.39
1500	(2.27)a)	(34.549)a)	-	(27.61)	1500	2.27	34.55	27.61	56	1.58

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HMCS OSHAWA; March 15, 1958; 1033 GCT; 50°18'N, 128°35'W; sounding, 800 fm; wind, 360°, 10 kt; weather, partly cloudy; sea, calm.										14
0	(8.69)a)	(31.558)a)	-	(24.50)	0	8.69	31.56	24.50	345	0.00
5	9.01	31.716	7.37	24.57	10	9.22	31.85	24.64	331	0.03
20	9.29	32.049	6.93	24.79	20	9.29	32.05	24.79	317	0.07
30	8.91	32.153	6.66	24.93	30	8.91	32.15	24.93	304	0.10
50	7.97	32.354	6.75	25.22	50	7.97	32.35	25.22	276	0.16
75	7.74	32.525	6.35	25.39	75	7.74	32.53	25.39	260	0.22
100	7.14	32.952	5.62	25.81	100	7.14	32.95	25.81	221	0.28
125	6.89	33.253	5.04	26.08	125	6.89	33.25	26.08	196	0.34
150	6.78	33.488	4.65	26.28	150	6.78	33.49	26.28	177	0.38
175	6.69	33.723	4.41	26.48	175	6.69	33.72	26.48	159	0.43
200	6.62	33.828	4.04	26.57	200	6.62	33.83	26.57	150	0.47
225	6.39	33.894	3.44	26.65	225	6.39	33.89	26.65	143	0.50
250	6.16	33.934	2.78	26.71	250	6.16	33.93	26.71	137	0.54
300	5.88	33.957	2.22	26.77	300	5.88	33.96	26.77	133	0.60
385	5.46	34.051	1.13	26.89	400	5.37	34.06	26.91	120	0.73
480	4.80	34.085	0.92	26.99	500	4.71	34.10	27.02	110	0.85
574	4.54	34.170	0.53	27.09	600	4.47	34.19	27.11	102	0.96
761	4.06	34.276	0.34	27.23	700	4.21	34.25	27.19	95	1.06
947	3.41	34.391	0.36	27.38	800	3.94	34.30	27.26	89	1.15
1130	2.94	34.449	0.41	27.47	1000	3.26	34.41	27.42	75	1.31
1200	(2.80)a)	(34.457)a)	-	(27.49)	1200	2.80	34.46	27.49	68	1.46
HMCS OSHAWA; March 15, 1958; 2351 GCT; 50°13'N, 128°46'W; sounding, 890 fm; wind, 050°, 5 kt; weather, partly cloudy; sea, smooth.										15
0	(9.10)a)	(31.822)a)	-	(24.64)	0	9.10	31.82	24.64	331	0.00
5	8.94	31.665	7.08	24.54	10	8.86	31.59	24.50	345	0.03
19	8.93	31.664	7.01	24.54	20	8.95	31.69	24.56	339	0.07
29	9.33	32.060	6.72	24.79	30	9.36	32.09	24.81	315	0.10
48	9.74	32.535	6.26	25.09	50	9.71	32.55	25.11	287	0.16
72	8.42	32.393	6.46	25.19	75	8.31	32.39	25.20	279	0.23
97	7.91	32.418	6.57	25.28	100	7.93	32.47	25.32	268	0.30
121	8.54	33.071	5.10	25.70	125	8.41	33.13	25.77	226	0.36
145	6.78	33.244	5.00	26.09	150	6.63	33.30	26.15	189	0.42
169	6.74	33.543	4.38	26.33	175	6.73	33.59	26.37	169	0.46
193	6.67	33.648	4.13	26.42	200	6.65	33.69	26.46	161	0.50
218	6.58	33.826	4.14	26.57	225	6.54	33.86	26.60	148	0.54
242	6.41	33.902	3.36	26.65	250	6.33	33.92	26.68	140	0.58
290	5.82	33.971	2.03	26.78	300	5.72	33.98	26.81	129	0.65
389	5.18	34.020	1.41	26.90	400	5.13	34.03	26.91	120	0.77
488	4.85	34.086	0.94	26.99	500	4.81	34.10	27.00	112	0.89
587	4.51	34.191	0.57	27.11	600	4.47	34.20	27.12	101	1.00
784	3.94	34.295	0.36	27.25	700	4.17	34.27	27.21	93	1.09
982	3.44	34.377	0.39	27.37	800	3.90	34.30	27.26	88	1.18
1180	3.00	34.446	0.47	27.47	1000	3.40	34.38	27.38	78	1.35
1200	(2.96)a)	(34.452)a)	-	(27.47)	1200	2.96	34.45	27.47	70	1.50
HMCS OSHAWA; March 15, 1958; 1635 GCT; 50°24.5'N, 128°18.5'W; sounding, 100 fm; wind, 050°, 5 kt; weather, partly cloudy; sea, calm.										16
0	8.60	31.830	7.24	24.72	0	8.60	31.83	24.72	323	0.00
10	8.82	31.816	7.28	24.68	10	8.82	31.82	24.68	327	0.03
20	8.83	31.864	6.75	24.71	20	8.83	31.86	24.71	324	0.06
30	8.82	32.009	6.66	24.83	30	8.82	32.01	24.83	313	0.10
50	8.22	32.329	6.64	25.17	50	8.22	32.33	25.17	281	0.16
75	8.02	32.461	5.81	25.30	75	8.02	32.46	25.30	269	0.23
100	7.56	32.928	5.53	25.73	100	7.56	32.93	25.73	228	0.29
125	7.25	33.374	4.51	26.13	125	7.25	33.37	26.13	191	0.34
150	7.22	33.685	3.39	26.37	150	7.22	33.69	26.37	168	0.39
170	6.94	33.839	2.70	26.53						

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
17	HMCS OSHAWA; March 15, 1958; 2050 GCT; 50°42'N, 128°55'W; sounding, 100 fm; wind, 300°, 5 kt; weather, clear; sea, smooth.									
0	(8.72)a)	(31.790)a)	-	(24.67)	0	8.72	31.79	24.67	328	0.00
5	8.72	31.720	8.31	24.62	10	8.71	31.71	24.61	334	0.03
20	8.66	31.842	7.36	24.72	20	8.66	31.84	24.72	323	0.07
30	8.56	32.199	6.74	25.02	30	8.56	32.20	25.02	296	0.10
50	8.84	32.407	6.63	25.14	50	8.84	32.41	25.14	284	0.16
74	8.49	32.598	6.10	25.34	75	8.48	32.61	25.35	265	0.22
99	8.32	32.825	5.50	25.54	100	8.31	32.84	25.55	246	0.29
124	7.84	33.144	-	25.86	125	7.81	33.16	25.88	215	0.35
149	6.85	33.647	3.74	26.40	150	6.83	33.66	26.41	165	0.40
173	6.71	33.854	2.83	26.58	175	6.73	33.86	26.58	149	0.43
175	(6.73)a)	(33.859)a)	-	(26.58)						
18	HMCS OSHAWA; March 15, 1958; 2249 GCT; 50°50'N, 129°20'W; sounding, 77 fm; wind, 250°, 5 kt; weather, clear; sea, smooth.									
0	(9.07)a)	(31.286)a)	-	(24.23)	0	9.07	31.29	24.23	370	0.00
5	9.02	31.414	8.61	24.33	10	8.97	31.52	24.42	352	0.04
20	8.87	31.670	6.78	24.56	20	8.87	31.67	24.56	339	0.07
30	8.76	31.734	6.78	24.62	30	8.76	31.73	24.62	333	0.10
49	9.01	32.087	6.55	24.86	50	9.01	32.10	24.87	310	0.17
74	8.86	32.322	5.92	25.07	75	8.85	32.33	25.08	290	0.24
99	8.72	32.690	5.33	25.38	100	8.70	32.71	25.40	260	0.31
124	7.66	33.528	3.36	26.19	125	7.60	33.57	26.23	182	0.37
125	(7.60)a)	(33.571)a)	-	(26.23)						
19	HMCS OSHAWA; March 16, 1958; 0511 GCT; 51°00'N, 128°10'W; sounding, 45 fm; wind, 010°, 8 kt; weather, partly cloudy; sea, smooth.									
0	8.40	31.332	6.78	24.36	0	8.40	31.33	24.36	357	0.00
10	8.44	31.306	6.88	24.34	10	8.44	31.31	24.34	360	0.04
20	8.52	31.340	6.88	24.35	20	8.52	31.34	24.35	359	0.07
30	8.42	31.420	6.90	24.43	30	8.42	31.42	24.43	352	0.11
50	8.68	31.683	7.00	24.60	50	8.68	31.68	24.60	336	0.18
70	8.82	32.080	6.90	24.88						
20	HMCS OSHAWA; March 16, 1958; 0823 GCT; 51°00'N, 128°55'W; sounding, 35 fm; wind, 320°, 5 kt; weather, clear; sea, calm.									
0	8.60	31.374	8.90	24.37	0	8.60	31.37	24.37	357	0.00
10	8.78	31.407	6.45	24.37	10	8.78	31.41	24.37	357	0.04
20	8.80	31.688	6.55	24.58	20	8.80	31.69	24.58	337	0.07
30	8.76	31.814	6.79	24.69	30	8.76	31.81	24.69	327	0.10
50	8.80	31.874	8.27	24.73	50	8.80	31.87	24.73	324	0.17
21	HMCS OSHAWA; March 16, 1958; 0316 GCT; 51°16'N, 129°33'W; sounding, 128 fm; wind, calm; weather, partly cloudy; sea, calm.									
0	(8.44)a)	(31.437)a)	-	(24.44)	0	8.44	31.44	24.44	350	0.00
5	8.52	31.501	6.69	24.48	10	8.59	31.56	24.52	343	0.04
20	8.70	31.688	6.52	24.60	20	8.70	31.69	24.60	335	0.07
30	8.78	31.808	6.20	24.68	30	8.78	31.81	24.68	328	0.10
50	9.02	32.196	6.32	24.94	50	9.02	32.20	24.94	303	0.17
75	8.98	32.554	5.94	25.23	75	8.98	32.55	25.23	276	0.24
100	8.62	32.883	5.17	25.54	100	8.62	32.88	25.54	247	0.30
125	7.52	33.557	3.33	26.23	125	7.52	33.56	26.23	182	0.36
150	6.45	33.929	2.04	26.67	150	6.45	33.93	26.67	140	0.40
175	6.24	33.961	1.96	26.72	175	6.24	33.96	26.72	135	0.43
200	6.04	33.994	1.77	26.77	200	6.04	33.99	26.77	131	0.47
225	5.91	33.999	1.68	26.80	225	5.91	34.00	26.80	129	0.50

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HMCS OSHAWA; March 16, 1958; 1444 GCT; 51°32'N, 130°11'W; sounding, 510 fm; wind, calm; weather, cloudy; sea, calm.										22
0	(8.52)a)	(31.427)a)	-	(24.42)	0	8.52	31.43	24.42	352	0.00
5	8.39	31.393	7.04	24.41	10	8.31	31.38	24.41	353	0.04
20	8.29	31.399	7.03	24.43	20	8.29	31.40	24.43	351	0.07
30	8.47	31.493	7.00	24.48	30	8.47	31.49	24.48	347	0.11
50	8.88	31.794	6.56	24.65	50	8.88	31.79	24.65	331	0.17
75	8.98	32.298	6.34	25.03	75	8.98	32.30	25.03	295	0.25
100	8.72	32.620	5.80	25.32	100	8.72	32.62	25.32	268	0.32
125	8.13	33.278	4.40	25.93	125	8.13	33.28	25.93	211	0.38
150	7.15	33.538	4.20	26.27	150	7.15	33.54	26.27	178	0.43
175	7.18	33.789	3.01	26.46	175	7.18	33.79	26.46	160	0.48
200	6.78	33.886	2.73	26.59	200	6.78	33.89	26.59	148	0.51
225	6.56	33.907	2.62	26.64	225	6.56	33.91	26.64	144	0.55
250	6.37	33.934	2.44	26.69	250	6.37	33.93	26.69	140	0.59
300	5.94	33.965	2.22	26.76	300	5.94	33.97	26.76	133	0.66
399	5.20	34.044	1.43	26.92	400	5.19	34.04	26.92	119	0.78
499	4.82	34.122	0.94	27.02	500	4.82	34.12	27.02	110	0.90
599	4.32	34.196	0.62	27.14	600	4.32	34.20	27.14	99	1.00
798	3.74	34.292	0.59	27.27	700	3.96	34.25	27.22	92	1.10
898	3.66	34.313	0.54	27.30	800	3.74	34.29	27.27	88	1.19
HMCS OSHAWA; March 16, 1958; 1745 GCT; 51°50.5'N, 130°48'W; sounding, 130 fm; wind, 020°, 8 kt; weather, overcast; sea, smooth.										23
0	8.20	31.729	6.97	24.70	0	8.20	31.73	24.70	325	0.00
10	8.46	31.851	6.94	24.76	10	8.46	31.85	24.76	320	0.03
20	8.50	31.986	6.90	24.86	20	8.50	31.99	24.86	310	0.06
29	8.49	31.996	6.82	24.87	30	8.49	32.00	24.87	309	0.10
49	8.55	32.101	6.94	24.94	50	8.55	32.11	24.95	303	0.16
73	8.54	32.204	6.66	25.02	75	8.54	32.21	25.03	295	0.23
98	8.55	32.252	6.51	25.06	100	8.55	32.26	25.07	292	0.31
122	8.62	32.462	6.45	25.21	125	8.60	32.49	25.24	276	0.38
147	8.25	32.737	5.57	25.48	150	8.18	32.78	25.53	249	0.44
171	7.50	33.183	4.38	25.94	175	7.37	33.25	26.01	203	0.50
196	6.67	33.599	3.21	26.38	200	6.53	33.66	26.45	162	0.55
220	5.84	33.916	2.17	26.74						
HMCS OSHAWA; March 18, 1958; 0307 GCT; 51°56'N, 131°05'W; sounding, 98 fm; wind, direction missing, 3 kt; weather, overcast; sea, calm.										24
0	8.60	32.310	6.52	25.10	0	8.60	32.31	25.10	287	0.00
10	8.67	32.234	6.81	25.03	10	8.67	32.23	25.03	294	0.03
20	8.62	32.244	6.53	25.04	20	8.62	32.24	25.04	293	0.06
30	8.62	32.267	6.42	25.06	30	8.62	32.27	25.06	291	0.09
50	8.55	32.284	6.44	25.08	50	8.55	32.28	25.08	289	0.15
75	8.48	32.369	6.01	25.16	75	8.48	32.37	25.16	282	0.22
100	8.44	32.409	6.00	25.20	100	8.44	32.41	25.20	279	0.29
125	8.47	32.495	5.85	25.26	125	8.47	32.50	25.26	274	0.36
150	8.34	32.749	5.33	25.48	150	8.34	32.75	25.48	253	0.42
175	8.27	32.832	5.10	25.56	175	8.27	32.83	25.56	247	0.49

a) Value extrapolated by three-point parabolic method.

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NP-58-I

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
25	HMCS OSHAWA; March 18, 1958; 0424 GCT; 51°56'N, 131°13'W; sounding, 505 fm; wind, direction missing, 3 kt; weather, overcast; sea, calm.									
0	(8.65)a)	(32.228)a)	-	(25.03)	0	8.65	32.23	25.03	294	0.00
5	8.66	32.232	6.72	25.03	10	8.66	32.24	25.03	294	0.03
20	8.66	32.239	6.75	25.03	20	8.66	32.24	25.03	294	0.06
30	8.64	32.240	6.71	25.04	30	8.64	32.24	25.04	294	0.09
50	8.69	32.299	6.53	25.08	50	8.69	32.30	25.08	290	0.15
73	8.72	32.338	6.41	25.10	75	8.72	32.34	25.10	288	0.22
100	8.72	32.386	6.24	25.14	100	8.72	32.39	25.14	285	0.29
125	8.66	32.539	6.00	25.27	125	8.66	32.54	25.27	273	0.36
150	8.28	32.886	5.19	25.60	150	8.28	32.89	25.60	242	0.43
174	7.92	33.158	4.39	25.86	175	7.90	33.17	25.88	216	0.48
199	7.42	33.586	3.47	26.27	200	7.40	33.60	26.28	178	0.54
224	6.90	33.854	2.77	26.55	225	6.88	33.86	26.56	152	0.58
249	6.36	33.906	2.44	26.66	250	6.34	33.91	26.67	142	0.61
299	5.59	33.972	1.85	26.81	300	5.58	33.97	26.82	128	0.68
398	4.78	34.072	1.10	26.99	400	4.77	34.07	26.99	112	0.80
498	4.51	34.136	0.78	27.07	500	4.51	34.14	27.07	105	0.91
598	4.32	34.177	0.69	27.12	600	4.32	34.18	27.12	101	1.02
798	3.73	34.286	0.48	27.27	700	4.05	34.23	27.19	95	1.11
898	3.52	34.322	0.47	27.32	800	3.73	34.29	27.27	88	1.21
26	HMCS OSHAWA; March 18, 1958; 0552 GCT; 51°55'N, 131°23'W; sounding, 1090 fm; wind, calm; weather, overcast; sea, calm.									
0	(8.41)a)	(31.756)a)	-	(24.69)	0	8.41	31.76	24.69	326	0.00
5	8.54	31.748	6.97	24.67	10	8.62	31.77	24.67	328	0.03
20	8.62	31.896	7.21	24.77	20	8.62	31.90	24.77	319	0.06
30	8.42	32.137	7.24	24.99	30	8.42	32.14	24.99	298	0.10
50	8.56	32.232	6.66	25.04	50	8.56	32.23	25.04	293	0.16
75	8.58	32.434	6.08	25.20	75	8.58	32.43	25.20	279	0.23
100	8.18	32.602	5.53	25.39	100	8.18	32.60	25.39	261	0.30
125	8.50	32.976	4.74	25.63	125	8.50	32.98	25.63	238	0.36
150	7.76	33.449	3.68	26.11	150	7.76	33.45	26.11	193	0.41
175	7.44	33.626	3.30	26.30	175	7.44	33.63	26.30	176	0.46
200	7.28	33.723	3.25	26.40	200	7.28	33.72	26.40	167	0.50
225	6.89	33.872	2.86	26.57	225	6.89	33.87	26.57	151	0.54
250	6.60	33.925	2.50	26.65	250	6.60	33.92	26.65	144	0.58
300	6.09	33.960	2.18	26.74	300	6.09	33.96	26.74	135	0.65
398	5.28	34.026	1.40	26.89	400	5.27	34.03	26.90	121	0.78
497	4.89	34.098	0.93	27.00	500	4.87	34.10	27.00	112	0.90
596	4.27	34.149	0.72	27.10	600	4.25	34.15	27.11	102	1.00
794	3.66	34.306	0.56	27.29	700	3.84	34.22	27.21	93	1.10
992	3.23	34.380	0.45	27.39	800	3.64	34.31	27.30	85	1.19
1191	2.88	34.435	0.48	27.47	1000	3.21	34.38	27.39	76	1.36
1489	2.32	34.500	0.74	27.57	1200	2.86	34.44	27.47	70	1.51
1500	(2.30)a)	(34.502)a)	-	(27.57)	1500	2.30	34.50	27.57	60	1.70

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

27

HMCS OSHAWA; March 18, 1958; 0948 GCT; 51°51'N, 132°11'W; sounding, 1353 fm; wind, 070°, 8 kt; weather, intermittent slight rain; sea, smooth.

0	(7.45)a)	(32.243)a)	-	(25.21)	0	7.45	32.24	25.21	276	0.00
5	7.47	32.302	6.93	25.25	10	7.49	32.35	25.29	269	0.03
20	7.50	32.426	7.20	25.35	20	7.50	32.43	25.35	264	0.05
30	7.49	32.464	6.99	25.38	30	7.49	32.46	25.38	261	0.08
50	7.48	32.545	6.68	25.44	50	7.48	32.55	25.44	255	0.13
75	6.96	32.818	6.04	25.73	75	6.96	32.82	25.73	228	0.19
100	6.84	33.370	4.70	26.18	100	6.84	33.37	26.18	186	0.25
125	6.92	33.609	3.67	26.36	125	6.92	33.61	26.36	170	0.29
150	6.66	33.734	3.62	26.49	150	6.66	33.73	26.49	157	0.33
175	6.54	33.853	3.27	26.60	175	6.54	33.85	26.60	147	0.37
200	6.43	33.911	2.88	26.66	200	6.43	33.91	26.66	142	0.41
225	6.14	33.926	2.70	26.71	225	6.14	33.93	26.71	137	0.44
250	5.93	33.960	2.28	26.76	250	5.93	33.96	26.76	132	0.48
300	5.57	33.978	1.74	26.82	300	5.57	33.98	26.82	127	0.54
402	4.95	34.022	1.14	26.93	400	4.96	34.02	26.93	118	0.66
503	4.56	34.123	0.81	27.05	500	4.57	34.12	27.05	107	0.78
604	4.03	34.156	0.57	27.13	600	4.05	34.16	27.13	100	0.88
805	3.62	34.276	0.68	27.27	700	3.73	34.20	27.20	93	0.98
1004	3.13	34.390	0.63	27.41	800	3.62	34.27	27.27	88	1.07
1202	2.77	34.449	0.72	27.49	1000	3.14	34.39	27.41	75	1.24
1500	2.30	34.499	0.77	27.57	1200	2.77	34.45	27.49	68	1.38
1995	1.87	34.613	1.56	27.69	1500	2.30	34.50	27.57	60	1.58
2391	1.73	34.630	2.03	27.72	2000	1.87	34.61	27.69	49	1.85
2500	(1.72)a)	(34.623)a)	-	(27.71)	2500	1.72	34.62	27.71	48	2.10

28

HMCS OSHAWA; March 18, 1958; 1708 GCT; 51°34'N, 133°27'W; sounding, 1640 fm; wind, direction missing, 3 kt; weather, cloudy; sea, calm.

0	(7.38)a)	(32.463)a)	-	(25.39)	0	7.38	32.46	25.39	259	0.00
5	7.40	32.486	6.85	25.41	10	7.41	32.50	25.42	257	0.03
20	7.40	32.503	6.76	25.42	20	7.40	32.50	25.42	257	0.05
30	7.36	32.470	5.70	25.40	30	7.36	32.47	25.40	259	0.08
50	7.34	32.499	5.98	25.43	50	7.34	32.50	25.43	257	0.13
75	7.33	32.549	5.02	25.47	75	7.33	32.55	25.47	253	0.19
100	7.52	33.198	3.96	25.95	100	7.52	33.20	25.95	208	0.25
125	7.26	33.552	3.40	26.26	125	7.26	33.55	26.26	178	0.30
150	7.10	33.709	2.84	26.41	150	7.10	33.71	26.41	165	0.34
175	6.86	33.805	2.54	26.52	175	6.86	33.81	26.52	155	0.38
200	6.64	33.876	2.49	26.60	200	6.64	33.88	26.60	147	0.42
225	6.38	33.910	2.16	26.66	225	6.38	33.91	26.66	142	0.46
250	6.12	33.978	1.93	26.75	250	6.12	33.98	26.75	134	0.49
300	5.48	33.965	2.08	26.82	300	5.48	33.97	26.82	127	0.56
400	5.34	33.989	1.58	26.86	400	5.34	33.99	26.86	125	0.69
500	4.50	34.116	0.82	27.05	500	4.50	34.12	27.05	107	0.80
600	4.04	34.166	0.66	27.14	600	4.04	34.17	27.14	99	0.91
800	3.60	34.272	0.50	27.27	700	3.74	34.22	27.21	92	1.00
1000	3.20	34.368	0.50	27.38	800	3.60	34.27	27.27	87	1.09
1200	2.82	34.428	0.52	27.47	1000	3.20	34.37	27.38	77	1.26
1500	2.36	34.510	0.86	27.57	1200	2.82	34.43	27.47	70	1.41
2000	1.88	34.606	1.56	27.69	1500	2.36	34.51	27.57	60	1.61
2502	1.71	34.638	2.15	27.73	2000	1.88	34.61	27.69	50	1.89
2900	1.59	34.662	2.50	27.75	2500	1.71	34.64	27.73	47	2.13
3000	(1.56)a)	(34.668)a)	-	(27.76)	3000	1.56	34.67	27.76	44	2.37

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
29	HMCS OSHAWA; March 19, 1958; 0148 GCT; 51°34'N, 135°26'W; sounding, 1926 fm; wind, direction missing, 3 kt; weather, partly cloudy; sea, calm.									
0	(7.47)a)	(32.473)a)	-	(25.39)	0	7.47	32.47	25.39	260	0.00
5	7.39	32.478	-	25.40	10	7.32	32.48	25.42	257	0.03
20	7.21	32.490	-	25.44	20	7.21	32.49	25.44	255	0.05
30	7.15	32.496	-	25.45	30	7.15	32.50	25.45	254	0.08
49	7.17	32.503	-	25.45	50	7.17	32.50	25.45	254	0.13
74	7.15	32.548	-	25.49	75	7.15	32.56	25.50	250	0.19
99	7.03	33.243	-	26.05	100	7.02	33.26	26.07	196	0.25
124	6.65	33.544	-	26.34	125	6.64	33.55	26.35	170	0.29
149	6.43	33.722	-	26.51	150	6.43	33.73	26.52	155	0.34
173	6.45	33.874	-	26.63	175	6.45	33.88	26.63	144	0.37
198	6.42	33.941	-	26.68	200	6.41	33.94	26.69	139	0.41
223	6.11	33.955	-	26.74	225	6.09	33.96	26.74	134	0.44
247	5.84	33.949	-	26.76	250	5.81	33.95	26.77	132	0.48
297	5.51	33.982	-	26.83	300	5.49	33.98	26.83	126	0.54
400	4.93	34.063	1.05	26.96	400	4.93	34.06	26.96	114	0.66
500	5.03	(34.132)b)	-	(27.01)	500	5.03	34.13	27.01	112	0.78
600	4.18	34.192	0.56	27.15	600	4.18	34.19	27.15	98	0.88
800	3.61	34.311	0.40	27.30	700	3.71	34.25	27.24	89	0.98
1000	3.19	34.390	0.44	27.40	800	3.61	34.31	27.30	85	1.06
1200	2.81	34.454	0.47	27.49	1000	3.19	34.39	27.40	76	1.23
1501	2.36	34.521	0.75	27.58	1200	2.81	34.45	27.49	68	1.37
1952	1.96	34.606	1.37	27.68	1500	2.36	34.52	27.58	60	1.57
2452	1.74	34.647	1.89	27.73	2000	1.93	34.61	27.69	50	1.84
2953	1.59	34.672	2.42	27.76	2500	1.72	34.65	27.73	46	2.09
3454	1.55	34.683	-	27.77	3000	1.58	34.67	27.76	44	2.32
3500	(1.55)a)	(34.683)a)	-	(27.77)	3500	1.55	34.68	27.77	45	2.55
30	HMCS OSHAWA; March 19, 1958; 0851 GCT; 51°26'N, 137°00'W; sounding, 1950 fm; wind, 350°, 10 kt; weather, cloudy; sea, slight.									
0	(6.69)a)		c)	-						
5	6.72			7.08						
20	6.74			7.18						
29	6.71			7.00						
49	6.73			6.94						
73	6.78			6.50						
98	6.60			4.23						
123	6.54			3.56						
147	6.37			3.04						
171	6.14			2.55						
196	6.00			2.30						
221	5.68			2.13						
245	5.51			1.95						
294	5.18			1.61						
400	4.61			1.09						
500	4.30			0.67						
600	3.98			0.54						
801	3.56			0.35						
1002	3.10			0.39						
1203	2.72			0.63						
1504	2.30			0.83						
2004	1.90			1.43						
2505	1.72			2.00						
3006	1.58			2.58						
3507	1.55			1.64						

a) Value extrapolated by three-point parabolic method.
b) Value interpolated by three-point parabolic method.
c) Salinity determinations unreliable.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

31

HMCS OSHAWA; March 19, 1958; 1755 GCT; 52°21'N, 135°32'W; sounding, 1945 fm; wind, 010°, 25 kt; weather, moderate rain showers; sea, moderate.

0	7.12	a)	6.61
19	7.14		6.76
29	7.11		6.79
48	7.15		7.01
72	7.09		6.23
96	7.28		5.10
120	7.14		3.49
144	7.10		3.21
168	6.82		2.99
192	6.74		2.67
216	6.50		2.52
240	6.29		2.42
288	5.85		2.25
390	5.06		1.55
490	4.67		1.10
590	4.28		0.81
790	3.69		0.49
991	3.24		0.39
1192	2.86		0.43
1494	2.44		0.71
1998	1.96		1.43
2468	1.87		1.84
2970	1.62		2.56
3372	1.58		2.79

32

HMCS OSHAWA; March 20, 1958; 0302 GCT; 52°55'N, 134°04'W; sounding, 1519 fm; wind, 360°, 30 kt; weather, partly cloudy; sea, moderate.

5	8.40	a)	6.98
20	8.40		7.02
30	8.39		6.06
50	7.89		6.45
75	8.39		5.94
99	8.53		5.62
124	8.35		5.19
149	7.80		4.16
174	7.58		3.37
199	7.25		2.93
223	7.09		2.90
248	6.94		2.77
298	6.18		2.24
397	5.25		1.42
497	4.75		1.06
596	4.09		0.62
796	3.63		0.50
995	3.21		0.40
1193	2.83		0.59
1490	2.35		0.75
1985	1.88		1.23
2480	1.67		1.84
2725	1.65		2.13

a) Salinity determinations unreliable.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

33 HMCS OSHAWA; March 20, 1958; 0905 GCT; 53°23'N, 133°32'W; sounding, 1150 fm; wind, 360°, 20 kt; weather, partly cloudy; sea, slight.

5	7.58	a)	7.30
19	7.63		7.04
29	7.46		6.93
49	7.02		6.88
73	6.98		6.88
97	7.14		6.20
122	7.64		4.51
146	6.93		4.30
170	6.74		3.58
194	6.61		2.96
219	6.43		2.70
243	6.24		2.48
292	5.70		2.06
347	5.32		1.71
439	4.80		1.14
531	4.44		0.80
710	3.74		0.57
890	3.37		0.39
1073	3.07		0.38
1350	2.50		0.67
1820	1.98		1.30

34 HMCS OSHAWA; March 20, 1958; 1232 GCT; 53°25'N, 133°14'W; sounding, 550 fm; wind, 360°, 20 kt; weather, partly cloudy; sea, slight.

0	(8.01)b)	(32.301)b)	-	(25.18)	0	8.01	32.30	25.18	280	0.00
5	8.00	32.299	6.73	25.18	10	8.00	32.30	25.18	280	0.03
20	8.00	32.299	6.64	25.18	20	8.00	32.30	25.18	280	0.06
29	8.02	32.304	6.74	25.18	30	8.01	32.31	25.18	280	0.08
49	7.52	32.501	6.68	25.40	50	7.50	32.51	25.41	258	0.14
73	7.08	32.552	6.71	25.50	75	7.05	32.55	25.51	249	0.20
98	6.72	32.549	6.91	25.55	100	6.69	32.55	25.55	245	0.26
122	6.38	32.554	6.91	25.60	125	6.40	32.60	25.63	238	0.32
146	6.90	33.194	4.72	26.03	150	6.95	33.28	26.09	195	0.38
171	7.08	33.636	3.16	26.36	175	7.07	33.68	26.39	167	0.42
195	6.90	33.797	3.05	26.51	200	6.87	33.82	26.53	154	0.47
220	6.80	33.871	3.04	26.58	225	6.77	33.88	26.59	149	0.50
244	6.64	33.896	2.87	26.62	250	6.60	33.90	26.63	145	0.54
293	6.27	33.931	2.42	26.70	300	6.21	33.94	26.71	138	0.61
392	5.37	33.981	1.78	26.85	400	5.30	33.99	26.86	124	0.74
489	4.47	34.069	1.05	27.02	500	4.41	34.08	27.03	108	0.86
587	4.16	34.146	0.69	27.11	600	4.12	34.16	27.12	100	0.97
783	3.59	34.292	0.60	27.29	700	3.82	34.23	27.22	92	1.07
881	3.46	34.314	0.43	27.32	800	3.56	34.30	27.29	85	1.16

35 HMCS OSHAWA; March 20, 1958; 1415 GCT; 53°30'N, 133°01'W; sounding, 101 fm; wind, 360°, 10 kt; weather, partly cloudy; sea, smooth.

0	(8.38)b)	(32.174)b)	-	(25.02)	0	8.38	32.17	25.02	294	0.00
5	8.28	32.178	7.20	25.04	10	8.21	32.19	25.06	291	0.03
20	8.15	32.228	6.75	25.10	20	8.15	32.23	25.10	287	0.06
30	8.20	32.293	6.65	25.14	30	8.20	32.29	25.14	283	0.09
50	8.27	32.327	6.55	25.16	50	8.27	32.33	25.16	282	0.14
75	8.28	32.385	6.38	25.20	75	8.28	32.39	25.20	278	0.22
99	8.18	32.551	6.05	25.35	100	8.18	32.56	25.35	264	0.28
124	8.12	32.729	5.33	25.50	125	8.12	32.73	25.50	251	0.35
149	8.20	32.817	5.12	25.55	150	8.20	32.82	25.56	246	0.41
174	8.07	33.006	4.78	25.72	175	8.06	33.02	25.73	230	0.47
175	(8.06)b)	(33.016)b)	-	(25.73)						

a) Salinity determinations unreliable.

b) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HMCS OSHAWA; March 20, 1958; 1757 GCT; 54°00'N, 133°30'W; sounding, 105 fm; wind, 360°, 15 kt; weather, partly cloudy; sea, slight.										36
0	(8.09)a)	(32.339)a)	-	(25.20)	0	8.09	32.34	25.20	278	0.00
5	8.07	32.334	6.80	25.19	10	8.06	32.33	25.19	278	0.03
20	8.07	32.336	6.72	25.20	20	8.07	32.34	25.20	278	0.06
30	8.13	32.351	6.69	25.20	30	8.13	32.35	25.20	278	0.08
50	8.10	32.500	6.06	25.32	50	8.10	32.50	25.32	267	0.14
75	7.19	32.558	6.63	25.49	75	7.19	32.56	25.49	251	0.20
100	6.73	32.636	6.59	25.62	100	6.73	32.64	25.62	239	0.27
125	7.39	33.313	4.55	26.06	125	7.39	33.31	26.06	198	0.32
150	7.20	33.752	3.11	26.43	150	7.20	33.75	26.43	163	0.37
175	6.65	33.886	2.59	26.61	175	6.65	33.89	26.61	146	0.40
HMCS OSHAWA; March 20, 1958; 1937 GCT; 54°00'N, 133°44'W; sounding, 542 fm; wind, 360°, 15 kt; weather, partly cloudy; sea, slight.										37
0	(7.29)a)	(32.489)a)	-	(25.43)	0	7.29	32.49	25.43	256	0.00
5	7.50	32.434	7.15	25.35	10	7.60	32.41	25.32	267	0.03
19	7.50	32.422	7.16	25.34	20	7.47	32.43	25.35	263	0.05
28	7.04	32.525	7.02	25.49	30	6.95	32.54	25.51	248	0.08
47	6.42	32.545	7.10	25.59	50	6.37	32.55	25.59	241	0.13
71	6.37	32.563	6.99	25.61	75	6.33	32.59	25.63	238	0.19
94	6.06	32.785	6.44	25.82	100	6.18	32.93	25.92	210	0.24
118	7.02	33.587	3.84	26.33	125	7.14	33.70	26.40	165	0.29
142	7.13	33.764	3.23	26.45	150	7.07	33.79	26.48	158	0.33
165	6.82	33.813	2.88	26.53	175	6.72	33.83	26.56	151	0.37
189	6.60	33.857	2.89	26.59	200	6.30	33.86	26.64	144	0.41
212	5.83	33.848	2.99	26.69	225	5.72	33.87	26.72	136	0.44
236	5.81	33.902	2.42	26.73	250	5.72	33.93	26.76	132	0.48
283	5.30	33.982	1.68	26.86	300	5.13	34.00	26.89	121	0.54
378	4.48	33.991	1.43	26.96	400	4.37	34.00	26.98	112	0.66
472	4.20	34.073	0.90	27.05	500	4.15	34.10	27.08	104	0.77
567	4.08	34.156	0.66	27.13	600	4.02	34.18	27.15	97	0.87
756	3.60	34.266	0.49	27.26	700	3.78	34.24	27.23	91	0.96
850	3.46	34.310	0.41	27.31	800	3.53	34.29	27.29	86	1.05
HMCS OSHAWA; March 20, 1958; 2153 GCT; 53°58'N, 134°09'W; sounding, 1234 fm; wind, 020°, 30 kt; weather, partly cloudy; sea, rough.										38
0	(7.26)a)	(32.526)a)	-	(25.46)	0	7.26	32.53	25.46	253	0.00
5	7.24	32.518	7.19	25.46	10	7.23	32.51	25.45	254	0.02
19	7.22	32.513	7.02	25.45	20	7.22	32.51	25.46	254	0.05
28	7.23	32.523	6.96	25.46	30	7.23	32.52	25.46	253	0.08
47	7.26	32.492	6.93	25.43	50	7.23	32.52	25.46	254	0.13
71	6.78	32.920	5.57	25.83	75	6.82	32.99	25.88	214	0.19
95	7.56	33.330	4.19	26.05	100	7.59	33.40	26.10	194	0.24
118	7.31	33.626	3.76	26.32	125	7.25	33.69	26.37	168	0.28
142	7.12	33.790	3.16	26.47	150	7.06	33.82	26.50	156	0.32
166	6.96	33.826	2.89	26.52	175	6.88	33.84	26.54	152	0.36
190	6.74	33.869	2.76	26.59	200	6.67	33.88	26.61	147	0.40
213	6.61	33.902	2.76	26.63	225	6.45	33.92	26.66	142	0.44
237	6.22	33.930	2.53	26.70	250	6.06	33.94	26.73	135	0.47
284	5.78	33.964	2.05	26.78	300	5.61	33.97	26.81	128	0.54
376	4.64	33.969	1.74	26.92	400	4.45	33.98	26.95	116	0.66
471	4.18	34.020	1.27	27.01	500	4.09	34.04	27.04	107	0.77
567	3.97	34.117	0.84	27.11	600	3.90	34.15	27.14	98	0.88
760	3.59	34.276	0.59	27.27	700	3.70	34.23	27.23	91	0.97
955	3.12	34.363	0.54	27.39	800	3.50	34.30	27.30	84	1.06
1152	2.87	34.418	0.55	27.45	1000	3.04	34.38	27.41	75	1.22
1454	2.35	34.516	0.83	27.58	1200	2.80	34.43	27.47	69	1.37
1968	1.94	34.592	1.44	27.67	1500	2.29	34.53	27.59	58	1.56
2000	(1.93)a)	(34.593)a)	-	(27.67)	2000	1.93	34.59	27.67	51	1.84

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
39	HMCS OSHAWA; March 21, 1958; 0316 GCT; 54°00'N, 135°06'W; sounding, 1430 fm; wind, 030°, 20 kt; weather, partly cloudy; sea, moderate.									
0	(6.93)a)	(32.526)a)	-	(25.50)	0	6.93	32.53	25.50	249	0.00
5	6.93	32.525	6.53	25.50	10	6.93	32.52	25.50	249	0.02
19	6.93	32.526	6.66	25.50	20	6.93	32.53	25.50	249	0.05
29	6.94	32.529	6.91	25.50	30	6.93	32.53	25.51	249	0.08
48	6.45	32.575	6.74	25.60	50	6.41	32.58	25.61	239	0.12
73	6.20	32.685	6.42	25.72	75	6.17	32.70	25.74	227	0.18
97	5.74	33.020	5.77	26.04	100	5.69	33.06	26.08	195	0.24
121	5.39	33.328	5.22	26.33	125	5.35	33.37	26.37	168	0.28
145	5.23	33.540	4.67	26.51	150	5.22	33.58	26.55	151	0.32
170	5.25	33.729	3.70	26.66	175	5.25	33.76	26.68	139	0.36
194	5.22	33.818	3.37	26.74	200	5.20	33.83	26.75	133	0.39
218	5.14	33.868	3.06	26.78	225	5.12	33.88	26.80	128	0.42
243	5.05	(33.913)b)	2.67	(26.83)	250	5.04	33.92	26.84	124	0.46
291	5.07	33.977	1.59	26.88	300	5.04	33.98	26.89	121	0.52
375	4.39	33.978	1.49	26.96	400	4.27	33.99	26.98	112	0.64
470	4.11	34.069	0.95	27.06	500	4.05	34.10	27.09	103	0.74
566	3.95	34.168	0.69	27.15	600	3.89	34.20	27.18	94	0.84
764	3.54	34.302	0.46	27.30	700	3.68	34.27	27.26	88	0.94
958	3.15	(34.389)b)	0.46	(27.41)	800	3.47	34.32	27.32	82	1.02
1151	2.83	34.432	0.46	27.47	1000	3.07	34.40	27.42	73	1.18
1440	2.43	34.512	0.67	27.57	1200	2.76	34.44	27.49	68	1.32
2017	1.90	34.600	1.58	27.68	1500	2.36	34.53	27.58	59	1.52
2400	1.72	34.643	2.00	27.73	2000	1.91	34.60	27.68	51	1.80
2500	(1.70)a)	(34.652)a)	-	(27.74)	2500	1.70	34.65	27.74	46	2.04
40	HMCS OSHAWA; March 21, 1958; 1035 GCT; 54°00'N, 136°36'W; sounding, 1700 fm; wind, 020°, 30 kt; weather, partly cloudy; sea, rough.									
0	(6.32)a)	(32.613)a)	-	(25.65)	0	6.32	32.61	25.65	235	0.00
5	6.30	32.609	7.24	25.65	10	6.29	32.61	25.65	235	0.02
20	6.28	32.601	7.12	25.65	20	6.28	32.60	25.65	235	0.05
30	6.29	32.600	7.10	25.64	30	6.29	32.60	25.64	236	0.07
50	6.27	32.605	7.09	25.65	50	6.27	32.61	25.65	235	0.12
75	5.96	32.588	7.07	25.68	75	5.96	32.59	25.68	233	0.18
99	5.82	32.860	6.36	25.91	100	5.83	32.88	25.92	210	0.23
124	6.43	33.605	4.29	26.42	125	6.44	33.62	26.43	162	0.28
149	6.20	33.764	3.89	26.57	150	6.19	33.77	26.58	149	0.32
174	6.08	33.855	3.38	26.66	175	6.08	33.86	26.66	141	0.36
199	6.01	33.888	3.14	26.70	200	6.01	33.89	26.70	138	0.39
224	5.89	33.920	2.64	26.74	225	5.88	33.92	26.74	134	0.42
229	5.74	33.927	2.46	26.76	250	5.58	33.92	26.77	131	0.46
298	4.82	33.919	2.52	26.86	300	4.82	33.92	26.86	123	0.52
394	4.74	34.024	1.29	26.95	400	4.72	34.03	26.96	115	0.64
493	4.14	34.070	1.01	27.05	500	4.11	34.08	27.06	105	0.75
592	3.86	34.175	0.67	27.17	600	3.84	34.18	27.17	95	0.86
789	3.48	34.287	0.46	27.29	700	3.62	34.25	27.25	88	0.95
988	3.10	34.359	0.46	27.39	800	3.46	34.29	27.30	84	1.04
1185	2.76	34.428	0.54	27.47	1000	3.08	34.36	27.39	76	1.20
1482	2.37	34.504	0.69	27.57	1200	2.74	34.43	27.48	69	1.34
1976	1.93	34.604	1.43	27.68	1500	2.35	34.51	27.57	60	1.54
2470	1.72	34.636	2.11	27.72	2000	1.91	34.61	27.69	50	1.82
2965	1.61	34.665	2.55	27.75	2500	1.71	34.64	27.73	47	2.07
3000	(1.61)a)	(34.667)a)	-	(27.76)	3000	1.61	34.67	27.76	45	2.30

a) Value extrapolated by three-point parabolic method.
b) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

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HMCS OSHAWA; March 21, 1958; 1731 GCT; 54°00'N, 138°00'W; sounding, 1767 fm; wind, 020°, 30 kt; weather, cloudy; sea, moderate.

0	(6.19)a)	(32.624)a)	-	(25.68)	0	6.19	32.62	25.68	232	0.00
5	6.18	32.623	7.20	25.68	10	6.17	32.62	25.68	232	0.02
17	6.16	32.619	7.02	25.68	20	6.16	32.62	25.68	233	0.05
30	6.16	32.612	7.11	25.67	30	6.16	32.61	25.67	233	0.07
50	5.97	32.616	7.06	25.70	50	5.97	32.62	25.70	231	0.12
75	5.78	32.624	7.06	25.73	75	5.78	32.62	25.73	228	0.18
100	5.63	32.697	6.44	25.80	100	5.63	32.70	25.80	221	0.23
125	4.88	33.414	5.06	26.45	125	4.88	33.41	26.45	160	0.28
150	4.87	33.633	4.27	26.63	150	4.87	33.63	26.63	143	0.32
175	4.67	33.720	3.88	26.72	175	4.67	33.72	26.72	135	0.35
200	4.56	33.818	3.23	26.81	200	4.56	33.82	26.81	127	0.38
225	4.52	33.869	2.59	26.85	225	4.52	33.87	26.85	123	0.42
250	4.36	33.897	2.51	26.89	250	4.36	33.90	26.89	119	0.45
300	4.21	33.942	1.89	26.95	300	4.21	33.94	26.95	114	0.51
388	4.01	34.044	1.19	27.05	400	3.98	34.06	27.06	104	0.62
485	3.82	34.140	0.91	27.14	500	3.80	34.15	27.16	96	0.72
583	3.68	34.219	0.69	27.22	600	3.65	34.23	27.23	90	0.81
777	3.27	34.314	0.54	27.33	700	3.45	34.29	27.30	84	0.90
971	2.98	34.388	0.56	27.42	800	3.23	34.32	27.35	80	0.98
1165	2.70	34.440	0.73	27.49	1000	2.94	34.40	27.43	72	1.14
1456	2.35	34.504	0.76	27.57	1200	2.65	34.45	27.50	66	1.28
1941	1.93	34.589	1.47	27.67	1500	2.30	34.51	27.58	59	1.47
2427	1.72	34.630	2.06	27.72	2000	1.89	34.60	27.68	51	1.75
2915	1.60	34.657	2.69	27.75	2500	1.70	34.63	27.72	47	2.00
3000	(1.59)a)	(34.660)a)	-	(27.75)	3000	1.59	34.66	27.75	46	2.23

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HMCS OSHAWA; March 22, 1958; 0118 GCT; 55°00'N, 138°00'W; sounding, 2588 fm; wind, 350°, 12 kt; weather, partly cloudy; sea, missing.

0	(5.76)a)	(32.569)a)	-	(25.69)	0	5.76	32.57	25.69	232	0.00
5	5.76	32.570	7.04	25.69	10	5.75	32.57	25.69	231	0.02
20	5.72	32.571	7.15	25.69	20	5.72	32.57	25.69	231	0.05
30	5.67	32.570	7.18	25.70	30	5.67	32.57	25.70	231	0.07
50	5.65	32.569	7.12	25.70	50	5.65	32.57	25.70	231	0.12
75	5.69	32.568	7.06	25.69	75	5.69	32.57	25.69	232	0.17
100	5.83	33.016	5.67	26.03	100	5.83	33.02	26.03	200	0.23
125	6.08	33.512	4.07	26.39	125	6.08	33.51	26.39	166	0.28
150	5.26	33.605	4.30	26.56	150	5.26	33.61	26.56	150	0.32
175	5.35	33.777	3.47	26.69	175	5.35	33.78	26.69	138	0.35
200	5.07	33.820	3.24	26.75	200	5.07	33.82	26.75	132	0.38
225	4.63	33.838	3.04	26.82	225	4.63	33.84	26.82	126	0.42
250	4.83	33.909	2.12	26.85	250	4.83	33.91	26.85	123	0.45
300	4.65	33.965	1.56	26.92	300	4.65	33.97	26.92	118	0.51
402	4.37	34.035	1.08	27.00	400	4.37	34.03	27.00	110	0.62
503	4.12	34.112	0.82	27.09	500	4.13	34.11	27.09	103	0.73
604	3.83	34.174	0.55	27.17	600	3.84	34.17	27.17	96	0.83
805	3.39	34.306	0.49	27.32	700	3.60	34.24	27.24	89	0.93
1006	3.05	34.391	0.43	27.42	800	3.40	34.30	27.31	83	1.01
1208	2.73	34.441	0.54	27.49	1000	3.06	34.39	27.41	74	1.17
1510	2.27	34.513	0.84	27.58	1200	2.74	34.44	27.48	68	1.32
2014	1.89	34.596	1.52	27.68	1500	2.28	34.51	27.58	59	1.51
2516	1.69	34.644	2.08	27.73	2000	1.89	34.59	27.68	51	1.79
2868	1.57	34.669	2.51	27.76	2500	1.69	34.64	27.73	46	2.04
3000	(1.53)a)	(34.677)a)	-	(27.77)	3000	1.53	34.68	27.77	44	2.27

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
43	HMCS OSHAWA; March 22, 1958; 0653 GCT; 55°00'N, 136°48.5'W; sounding, 1600 fm; wind, 020°, 10 kt; weather, partly cloudy; sea, slight.									
0	(5.83)a)	(32.592)a)	-	(25.69)	0	5.83	32.59	25.69	231	0.00
5	5.83	32.590	7.10	25.69	10	5.83	32.59	25.69	231	0.02
20	5.83	32.590	7.08	25.69	20	5.83	32.59	25.69	231	0.05
30	5.83	32.594	7.13	25.70	30	5.83	32.59	25.70	231	0.07
50	5.73	32.600	7.11	25.71	50	5.73	32.60	25.71	229	0.12
75	5.59	32.674	6.81	25.79	75	5.59	32.67	25.79	222	0.17
100	5.49	32.986	5.96	26.05	100	5.49	32.99	26.05	198	0.23
125	5.41	33.506	4.51	26.47	125	5.41	33.51	26.47	159	0.27
150	5.31	33.747	3.54	26.67	150	5.31	33.75	26.67	140	0.31
175	5.36	33.912	2.86	26.79	175	5.36	33.91	26.79	128	0.34
200	5.21	33.900	2.45	26.80	200	5.21	33.90	26.80	128	0.37
225	4.92	33.908	2.30	26.84	225	4.92	33.91	26.84	124	0.41
250	4.77	33.914	2.07	26.86	250	4.77	33.91	26.86	122	0.44
300	4.50	33.965	1.65	26.93	300	4.50	33.97	26.93	116	0.50
399	4.19	34.031	1.10	27.02	400	4.19	34.03	27.02	108	0.61
499	3.92	34.117	0.92	27.11	500	3.92	34.12	27.12	100	0.72
598	3.73	34.186	0.63	27.19	600	3.73	34.19	27.19	94	0.81
798	3.42	34.318	0.43	27.32	700	3.56	34.25	27.26	88	0.90
997	3.03	34.393	0.41	27.42	800	3.42	34.32	27.32	82	0.99
1197	2.73	34.446	0.62	27.49	1000	3.02	34.39	27.42	73	1.15
1496	2.29	34.514	0.81	27.58	1200	2.73	34.45	27.49	67	1.29
1995	1.89	34.594	1.55	27.68	1500	2.29	34.51	27.58	59	1.48
2494	1.70	34.644	2.16	27.73	2000	1.89	34.59	27.68	51	1.76
2500	(1.70)a)	(34.644)a)	-	(27.73)	2500	1.70	34.64	27.73	46	2.01
44	HMCS OSHAWA; March 22, 1958; 1239 GCT; 55°00'N, 135°45'W; sounding, 1425 fm; wind, 360°, 12 kt; weather, overcast; sea, slight.									
0	(7.37)a)	(32.525)a)	-	(25.44)	0	7.37	32.52	25.44	254	0.00
5	7.09	32.535	6.74	25.49	10	6.84	32.54	25.53	246	0.02
20	6.43	32.560	6.91	25.60	20	6.43	32.56	25.60	240	0.05
30	6.13	32.572	7.00	25.64	30	6.13	32.57	25.64	236	0.07
50	6.10	32.582	6.98	25.65	50	6.10	32.58	25.65	235	0.12
75	6.23	32.680	6.52	25.72	75	6.23	32.68	25.72	230	0.18
100	6.64	33.293	4.63	26.15	100	6.64	33.29	26.15	189	0.23
125	5.74	33.532	4.37	26.45	125	5.74	33.53	26.45	161	0.28
150	5.84	33.761	3.51	26.62	150	5.84	33.76	26.62	145	0.32
175	5.82	33.843	3.10	26.68	175	5.82	33.84	26.68	139	0.35
200	5.79	33.917	2.44	26.75	200	5.79	33.92	26.75	133	0.38
225	5.38	33.932	2.28	26.81	225	5.38	33.93	26.81	128	0.42
250	5.14	33.961	1.88	26.86	250	5.14	33.96	26.86	123	0.45
300	4.87	34.008	1.62	26.93	300	4.87	34.01	26.93	117	0.51
400	4.63	34.065	1.12	27.00	400	4.63	34.06	27.00	111	0.62
500	4.12	34.130	0.94	27.10	500	4.12	34.13	27.10	101	0.73
600	3.89	34.214	0.54	27.19	600	3.89	34.21	27.19	93	0.83
800	3.40	34.306	0.41	27.32	700	3.65	34.27	27.27	87	0.92
1000	3.03	34.386	0.46	27.41	800	3.40	34.31	27.32	83	1.01
1200	2.69	34.444	0.47	27.49	1000	3.03	34.39	27.41	74	1.17
1500	2.30	34.513	0.78	27.58	1200	2.69	34.44	27.49	67	1.31
2000	1.89	34.592	1.51	27.68	1500	2.30	34.51	27.58	59	1.50
2500	1.69	(34.626)a)	2.13	(27.72)	2000	1.89	34.59	27.68	51	1.78
					2500	1.69	34.63	27.72	48	2.03

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HMCS OSHAWA; March 22, 1958; 1816 GCT; 54°58'N, 134°58'W; sounding, 1150 fm; wind, 040°, 15 kt; weather, cloudy; sea, slight.										45
0	(6.12)a)	(32.529)a)	-	(25.61)	0	6.12	32.53	25.61	239	0.00
5	6.16	32.536	7.13	25.61	10	6.18	32.54	25.61	238	0.02
19	6.15	32.544	7.36	25.62	20	6.14	32.54	25.62	238	0.05
29	6.04	32.540	7.31	25.63	30	6.03	32.54	25.63	237	0.07
48	5.74	32.581	7.19	25.70	50	5.72	32.58	25.70	230	0.12
73	5.68	32.584	7.25	25.71	75	5.68	32.59	25.71	230	0.18
97	5.74	32.657	6.90	25.76	100	5.73	32.69	25.79	223	0.23
121	5.62	33.122	5.69	26.14	125	5.60	33.20	26.20	184	0.28
145	5.46	33.549	4.37	26.49	150	5.47	33.61	26.54	152	0.33
170	5.64	33.782	3.45	26.66	175	5.62	33.81	26.68	139	0.36
194	5.34	33.830	3.30	26.73	200	5.26	33.84	26.75	133	0.40
218	5.00	33.864	3.10	26.80	225	4.93	33.87	26.81	127	0.43
242	4.83	33.900	2.36	26.85	250	4.78	33.91	26.86	123	0.46
291	4.60	33.960	1.67	26.92	300	4.56	33.97	26.93	116	0.52
395	4.28	34.071	1.11	27.04	400	4.27	34.07	27.04	106	0.64
494	4.14	34.102	0.94	27.08	500	4.13	34.10	27.08	103	0.74
592	4.01	34.143	0.81	27.13	600	4.00	34.15	27.13	100	0.84
790	3.62	34.261	0.56	27.26	700	3.82	34.20	27.19	94	0.94
988	3.12	34.370	0.50	27.39	800	3.60	34.27	27.27	88	1.03
1285	2.78	34.423	0.57	27.47	1000	3.10	34.37	27.40	76	1.20
1480	2.38	34.507	0.84	27.57	1200	2.83	34.42	27.46	70	1.35
1826	2.01	34.582	1.32	27.66	1500	2.35	34.51	27.58	60	1.54
2000	(1.99)a)	(34.584)a)	-	(27.66)	2000	1.99	34.58	27.66	53	1.83
HMCS OSHAWA; March 22, 1958; 2110 GCT; 54°58'N, 134°29'W; sounding, 440 fm; wind, 020°, 10 kt; weather, overcast; sea, slight.										46
0	7.00	32.490	-	25.47	0	7.00	32.49	25.47	252	0.00
5	6.92	32.495	7.08	25.48	10	6.73	32.51	25.52	248	0.02
20	6.02	32.574	7.12	25.66	20	6.02	32.57	25.66	234	0.05
30	5.95	32.576	7.11	25.67	30	5.95	32.58	25.67	233	0.07
50	5.92	32.580	7.06	25.67	50	5.92	32.58	25.67	233	0.12
74	5.85	32.604	7.07	25.70	75	5.85	32.61	25.71	230	0.18
99	5.75	33.004	5.87	26.03	100	5.74	33.02	26.04	199	0.23
124	5.50	33.396	5.00	26.37	125	5.49	33.41	26.38	167	0.28
149	5.45	33.575	4.48	26.52	150	5.45	33.58	26.52	154	0.32
174	5.67	33.786	3.51	26.66	175	5.67	33.79	26.66	141	0.36
199	5.43	33.871	2.90	26.75	200	5.42	33.87	26.76	132	0.39
223	5.17	33.898	2.46	26.80	225	5.16	33.90	26.81	127	0.42
248	5.06	33.920	2.33	26.83	250	5.05	33.92	26.84	125	0.45
298	4.82	33.934	2.04	26.87	300	4.81	33.94	26.87	122	0.52
397	4.40	34.025	1.23	26.99	400	4.39	34.03	26.99	111	0.63
496	4.05	34.108	0.72	27.09	500	4.04	34.11	27.10	102	0.74
595	3.83	34.208	0.49	27.20	600	3.82	34.21	27.20	93	0.84
744	3.57	34.275	0.49	27.27	700	3.64	34.27	27.26	88	0.93
800	(3.49)a)	(34.274)a)	-	(27.28)	800	3.49	34.27	27.28	86	1.02
HMCS OSHAWA; March 22, 1958; 2305 GCT; 54°57'N, 134°14'W; sounding, 104 fm; wind, 020°, 8 kt; weather, drizzle; sea, slight.										47
0	7.70	32.356	6.79	25.26	0	7.70	32.36	25.26	272	0.00
10	7.70	32.324	6.96	25.24	10	7.70	32.32	25.24	274	0.03
20	7.69	32.331	7.01	25.25	20	7.69	32.33	25.25	274	0.06
30	7.71	32.326	6.97	25.24	30	7.71	32.33	25.24	274	0.08
50	7.71	32.332	6.78	25.24	50	7.71	32.33	25.24	274	0.14
75	7.80	32.592	6.20	25.44	75	7.80	32.59	25.44	256	0.20
100	7.64	33.038	5.01	25.81	100	7.64	33.04	25.81	221	0.26
125	7.40	33.369	4.02	26.10	125	7.40	33.37	26.10	194	0.32
150	7.18	33.518	3.63	26.25	150	7.18	33.52	26.25	180	0.36
175	7.14	33.528	3.55	26.26	175	7.14	33.53	26.26	179	0.41

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
48	HMCS OSHAWA; March 23, 1958; 0204 GCT; 54°43'N, 133°30'W; sounding, 106 fm; wind, direction missing, 3 kt; weather, overcast; sea, calm.									
0	7.30	32.016	6.59	25.05	0	7.30	32.02	25.05	292	0.00
10	7.47	32.137	6.53	25.13	10	7.47	32.14	25.13	285	0.03
20	7.44	32.144	6.52	25.14	20	7.44	32.14	25.14	284	0.06
30	7.49	32.152	6.50	25.13	30	7.49	32.15	25.13	284	0.09
50	7.53	32.213	6.45	25.18	50	7.53	32.21	25.18	280	0.14
75	7.58	32.334	6.24	25.26	75	7.58	32.33	25.26	272	0.21
100	7.37	32.572	5.32	25.48	100	7.37	32.57	25.48	252	0.28
125	7.31	32.762	5.00	25.64	125	7.31	32.76	25.64	238	0.34
150	7.26	32.981	4.47	25.82	150	7.26	32.98	25.82	221	0.40
175	7.13	33.235	3.94	26.03	175	7.13	33.23	26.03	201	0.45
49	HMCS OSHAWA; March 23, 1958; 0352 GCT; 54°30'N, 133°17'W; sounding, 173 fm; wind, 120°, 12 kt; weather, overcast; sea, slight.									
0	(6.67)a)	(31.460)a)	-	(24.70)	0	6.67	31.46	24.70	325	0.00
5	6.68	31.466	6.63	24.70	10	6.70	31.48	24.71	324	0.03
19	6.73	31.531	6.44	24.75	20	6.73	31.54	24.75	320	0.06
29	6.78	31.620	6.38	24.81	30	6.79	31.63	24.82	314	0.10
48	7.07	31.896	6.72	24.99	50	7.09	31.92	25.00	297	0.16
72	7.11	32.026	5.94	25.09	75	7.12	32.04	25.10	288	0.23
96	7.17	32.131	5.60	25.16	100	7.17	32.14	25.17	282	0.30
120	7.17	32.187	5.81	25.21	125	7.18	32.20	25.22	278	0.37
144	7.21	32.255	5.57	25.25	150	7.20	32.33	25.31	269	0.44
168	7.14	32.664	4.60	25.58	175	7.13	32.73	25.64	238	0.51
192	7.14	32.801	4.61	25.69	200	7.10	32.92	25.79	224	0.56
216	6.96	33.277	3.76	26.09	225	6.88	33.40	26.20	186	0.62
240	6.73	33.526	3.27	26.32	250	6.64	33.60	26.39	168	0.66
288	6.37	33.769	2.79	26.56	300	6.30	33.78	26.57	151	0.74
300	(6.30)a)	(33.777)a)	-	(26.57)						
50	HMCS OSHAWA; March 23, 1958; 0616 GCT; 54°15.5'N, 133°05'W; sounding, 205 fm; wind, 120°, 15 kt; weather, drizzle; sea, smooth.									
0	(7.13)a)	(32.347)a)	-	(25.34)	0	7.13	32.35	25.34	265	0.00
5	7.14	32.324	5.61	25.32	10	7.15	32.31	25.30	268	0.03
20	7.17	32.291	5.86	25.29	20	7.17	32.29	25.29	270	0.05
30	7.18	32.300	5.72	25.29	30	7.18	32.30	25.29	269	0.08
50	7.19	32.314	5.62	25.30	50	7.19	32.31	25.30	268	0.14
75	7.18	32.352	5.73	25.33	75	7.18	32.35	25.33	266	0.20
100	7.31	32.482	5.59	25.42	100	7.31	32.48	25.42	258	0.27
124	7.18	32.712	5.11	25.62	125	7.17	32.72	25.63	239	0.33
149	6.98	32.982	4.37	25.86	150	6.97	32.99	25.87	216	0.39
174	6.72	33.340	3.64	26.17	175	6.71	33.35	26.18	187	0.44
199	6.43	33.568	3.15	26.39	200	6.42	33.58	26.40	166	0.48
224	6.08	33.752	2.53	26.58	225	6.07	33.76	26.58	149	0.52
249	6.00	33.794	2.53	26.62	250	6.00	33.80	26.62	146	0.56
298	5.84	33.837	2.53	26.68	300	5.83	33.84	26.68	141	0.63
348	5.52	33.875	2.42	26.75						
51	HMCS OSHAWA; March 26, 1958; 1523 GCT; 56°30'N, 135°36'W; sounding, 92 fm; wind, 230°, 12 kt; weather, moderate rain showers; sea, slight.									
0	6.40	31.896	6.89	25.08	0	6.40	31.90	25.08	289	0.00
10	6.60	31.899	6.97	25.05	10	6.60	31.90	25.05	292	0.03
20	6.80	32.002	6.71	25.11	20	6.80	32.00	25.11	286	0.06
30	6.92	32.063	6.72	25.14	30	6.92	32.06	25.14	284	0.09
50	7.38	32.251	6.48	25.23	50	7.38	32.25	25.23	276	0.14
75	7.52	32.420	6.25	25.34	75	7.52	32.42	25.34	265	0.21
100	6.91	32.732	5.19	25.67	100	6.91	32.73	25.67	234	0.27
125	6.77	32.790	5.15	25.73	125	6.77	32.79	25.73	229	0.33
150	6.71	32.894	4.72	25.82	150	6.71	32.89	25.82	220	0.39
174	6.66	33.044	4.44	25.95	175	6.66	33.05	25.95	208	0.44
175	(6.66)a)	(33.051)a)	-	(25.95)						

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

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HMCS OSHAWA; March 26, 1958; 1701 GCT; 56°30'N, 135°55'W; sounding, 540 fm; wind, 240°, 12 kt; weather, cloudy; sea, slight.

0	(6.96)a)	(32.400)a)	-	(25.40)	0	6.96	32.40	25.40	259	0.00
5	6.96	32.359	7.06	25.37	10	6.95	32.34	25.36	263	0.03
18	6.94	32.363	6.93	25.37	20	6.94	32.38	25.39	260	0.05
27	6.92	32.459	6.85	25.45	30	6.92	32.49	25.47	252	0.08
45	6.95	32.593	6.55	25.55	50	6.81	32.61	25.58	242	0.13
68	5.75	32.584	6.82	25.70	75	5.61	32.59	25.72	229	0.19
91	5.69	32.632	6.84	25.74	100	6.03	32.75	25.80	222	0.24
114	6.96	33.062	4.88	25.92	125	6.72	33.24	26.09	195	0.30
136	5.92	33.392	4.51	26.32	150	5.57	33.53	26.47	159	0.34
159	5.47	33.586	4.23	26.52	175	5.58	33.73	26.62	145	0.38
182	5.74	33.793	3.36	26.65	200	5.92	33.87	26.69	138	0.42
204	5.96	33.881	2.62	26.70	225	5.79	33.91	26.74	134	0.45
227	5.76	33.911	2.44	26.74	250	5.55	33.93	26.78	130	0.48
269	5.38	33.926	2.24	26.80	300	5.09	33.94	26.84	125	0.55
360	4.48	33.949	1.68	26.92	400	4.32	33.99	26.97	113	0.67
452	4.32	34.080	0.87	27.04	500	4.18	34.12	27.09	103	0.78
544	4.03	34.131	0.66	27.11	600	3.88	34.17	27.16	97	0.88
730	3.61	34.256	0.45	27.26	700	3.66	34.23	27.23	90	0.97
800	(3.51)a)	(34.311)a)	-	(27.31)	800	3.51	34.31	27.31	84	1.06

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HMCS OSHAWA; March 26, 1958; 1950 GCT; 56°32'N, 136°30'W; sounding, 1105 fm; wind, 270°, 15 kt; weather, cloudy; sea, slight.

0	(7.31)a)	(32.343)a)	-	(25.31)	0	7.31	32.34	25.31	267	0.00
5	7.26	32.300	7.91	25.28	10	7.20	32.29	25.28	270	0.03
20	7.05	32.348	7.07	25.35	20	7.05	32.35	25.35	264	0.05
29	6.88	32.504	6.93	25.49	30	6.86	32.52	25.51	249	0.08
50	6.21	32.628	6.81	25.68	50	6.21	32.63	25.68	233	0.13
75	5.57	32.643	6.74	25.77	75	5.57	32.64	25.77	224	0.19
100	5.83	33.030	5.53	26.04	100	5.83	33.03	26.04	199	0.24
125	6.12	33.336	4.55	26.25	125	6.12	33.34	26.25	180	0.29
150	6.16	33.644	3.28	26.48	150	6.16	33.64	26.48	158	0.33
175	5.92	33.812	3.09	26.65	175	5.92	33.81	26.65	142	0.37
200	5.64	33.890	2.50	26.74	200	5.64	33.89	26.74	134	0.40
224	5.30	33.924	2.35	26.81	225	5.29	33.93	26.81	127	0.44
250	5.20	33.950	2.02	26.84	250	5.20	33.95	26.84	124	0.47
300	4.82	33.976	1.60	26.91	300	4.82	33.98	26.91	119	0.53
400	4.33	34.031	1.12	27.00	400	4.33	34.03	27.00	110	0.64
500	4.17	34.106	0.78	27.08	500	4.17	34.11	27.08	104	0.75
600	3.93	34.172	0.63	27.16	600	3.93	34.17	27.16	97	0.85
800	3.51	34.289	0.46	27.29	700	3.71	34.23	27.23	91	0.95
1000	3.12	34.377	0.46	27.40	800	3.51	34.29	27.29	85	1.04
1200	2.79	34.429	0.48	27.47	1000	3.12	34.38	27.40	76	1.20
1500	2.38	34.512	0.73	27.57	1200	2.79	34.43	27.47	70	1.35
2001	1.90	34.598	1.64	27.68	1500	2.38	34.51	27.57	60	1.54
					2000	1.90	34.60	27.68	51	1.82

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
54	HMCS OSHAWA; March 27, 1958; 0039 GCT; 56°30'N, 137°25'W; sounding, 1300 fm; wind, 260°, 10 kt; weather, partly cloudy; sea, moderate.									
0	(6.79)a)	(31.944)a)	-	(25.07)	0	6.79	31.94	25.07	290	0.00
5	6.84	32.017	6.91	25.12	10	6.90	32.10	25.17	280	0.03
20	7.02	32.276	7.07	25.30	20	7.02	32.28	25.30	269	0.06
30	7.16	32.483	6.90	25.44	30	7.16	32.48	25.44	255	0.08
50	6.80	32.606	6.56	25.58	50	6.80	32.61	25.58	242	0.13
75	6.04	32.669	6.73	25.73	75	6.04	32.67	25.73	228	0.19
100	6.48	32.884	5.76	25.84	100	6.48	32.88	25.84	218	0.25
124	6.51	33.235	4.69	26.12	125	6.49	33.25	26.13	191	0.30
149	5.40	33.488	4.65	26.45	150	5.38	33.50	26.46	159	0.34
174	5.32	33.665	4.13	26.60	175	5.32	33.67	26.61	146	0.38
199	5.34	33.791	3.49	26.70	200	5.34	33.79	26.70	137	0.42
224	5.16	33.847	3.14	26.77	225	5.15	33.85	26.77	131	0.45
248	5.04	33.886	2.61	26.81	250	5.03	33.89	26.81	127	0.48
298	4.72	33.935	1.98	26.89	300	4.71	33.94	26.89	120	0.55
397	4.36	34.016	1.22	26.99	400	4.35	34.02	26.99	111	0.66
497	4.06	34.112	0.75	27.10	500	4.05	34.11	27.10	102	0.77
597	3.82	34.200	0.44	27.19	600	3.81	34.20	27.19	93	0.87
796	3.42	34.311	0.45	27.32	700	3.60	34.27	27.27	87	0.96
996	3.06	34.402	0.40	27.42	800	3.41	34.31	27.32	82	1.05
1197	2.69	34.455	0.63	27.50	1000	3.05	34.40	27.43	73	1.20
1497	2.28	34.538	0.84	27.60	1200	2.69	34.46	27.50	66	1.34
1998	1.87	34.600	1.48	27.68	1500	2.28	34.54	27.60	57	1.53
2248	1.75	34.634	1.88	27.72	2000	1.87	34.60	27.68	50	1.80
55	HMCS OSHAWA; March 27, 1958; 0620 GCT; 56°30'N, 138°44'W; sounding, 1720 fm; wind, 250°, 8 kt; weather, partly cloudy; sea, smooth.									
0	(6.92)a)	(32.054)a)	-	(25.13)	0	6.92	32.05	25.13	284	0.00
5	6.88	32.050	6.79	25.14	10	6.85	32.05	25.14	284	0.03
20	6.86	32.063	6.75	25.15	20	6.86	32.06	25.15	283	0.06
30	6.94	32.093	6.73	25.16	30	6.94	32.09	25.16	282	0.08
50	7.62	32.318	6.52	25.25	50	7.62	32.32	25.25	274	0.14
75	7.41	32.461	6.37	25.39	75	7.41	32.46	25.39	261	0.21
100	7.13	32.507	6.68	25.46	100	7.13	32.51	25.46	254	0.27
125	6.98	32.663	5.99	25.60	125	6.98	32.66	25.60	241	0.34
150	7.15	33.019	5.14	25.86	150	7.15	33.02	25.86	217	0.39
175	6.66	33.358	4.17	26.19	175	6.66	33.36	26.19	186	0.44
200	6.31	33.578	3.67	26.41	200	6.31	33.58	26.41	165	0.49
225	5.94	33.749	3.07	26.59	225	5.94	33.75	26.59	148	0.53
249	5.79	33.828	2.90	26.68	250	5.78	33.83	26.68	140	0.56
299	5.30	33.904	2.32	26.79	300	5.29	33.91	26.80	129	0.63
400	4.66	33.987	1.56	26.93	400	4.66	33.99	26.93	117	0.76
500	4.24	34.073	0.93	27.05	500	4.24	34.07	27.05	107	0.87
600	4.04	34.143	0.60	27.12	600	4.04	34.14	27.12	100	0.97
800	3.52	34.260	0.52	27.27	700	3.80	34.21	27.20	94	1.07
1000	3.20	34.353	0.60	27.37	800	3.52	34.26	27.27	87	1.16
1200	2.79	34.421	0.76	27.46	1000	3.20	34.35	27.37	78	1.33
1500	2.37	34.508	1.02	27.57	1200	2.79	34.42	27.46	70	1.48
2000	1.93	34.586	1.31	27.67	1500	2.37	34.51	27.57	60	1.68
2501	1.70	34.635	2.26	27.72	2000	1.93	34.59	27.67	52	1.97
3102	1.51	(34.655)a)	0.56	(27.75)	2500	1.70	34.63	27.72	47	2.22
					3000	1.54	34.65	27.75	45	2.45

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HMCS OSHAWA; March 27, 1958; 1202 GCT; 56°30'N, 140°00'W; sounding, 1850 fm; wind, 200°, 5 kt; weather, moderate snow showers; sea, slight.										56
0	(6.30)a)	(32.184)a)	-	(25.32)	0	6.30	32.18	25.32	266	0.00
5	6.25	32.182	7.17	25.32	10	6.22	32.18	25.33	266	0.03
20	6.18	32.189	7.39	25.34	20	6.18	32.19	25.34	265	0.05
30	6.19	32.204	7.21	25.35	30	6.19	32.20	25.35	264	0.08
50	6.40	32.288	6.84	25.39	50	6.40	32.29	25.39	261	0.13
75	6.69	32.435	6.40	25.46	75	6.69	32.44	25.46	254	0.20
100	6.64	32.515	6.50	25.53	100	6.64	32.52	25.53	247	0.26
125	6.36	32.555	6.56	25.60	125	6.36	32.56	25.60	241	0.32
150	5.50	32.595	6.79	25.74	150	5.50	32.59	25.74	228	0.38
175	6.67	33.068	4.83	25.96	175	6.67	33.07	25.96	207	0.44
200	6.69	33.389	4.13	26.21	200	6.69	33.39	26.21	184	0.48
225	6.46	33.570	3.30	26.39	225	6.46	33.57	26.39	168	0.53
250	6.31	33.728	3.01	26.53	250	6.31	33.73	26.53	154	0.57
284	6.21	33.825	2.96	26.62	300	5.98	33.88	26.69	140	0.64
300	5.98	33.880	2.67	26.69	400	4.87	34.11	27.01	110	0.77
568	4.26	34.077	0.94	27.05	500	4.32	34.16	27.10	102	0.88
1041	3.18	34.347	0.58	27.37	600	4.11	34.10	27.08	104	0.98
1515	2.42	34.487	0.69	27.55	700	3.71	34.16	27.17	96	1.08
1990	2.00	34.585	1.38	27.66	800	3.42	34.22	27.25	89	1.18
2180	1.87	34.617	1.57	27.70	1000	3.17	34.33	27.35	80	1.35
					1200	2.89	34.41	27.45	72	1.50
					1500	2.44	34.48	27.55	63	1.71
					2000	1.99	34.59	27.66	52	2.00
HMCS OSHAWA; March 27, 1958; 2212 GCT; 57°05'N, 139°46'W; sounding, 1825 fm; wind, 100°, 8 kt; weather, cloudy; sea, slight.										57
0	(6.51)a)	(32.282)a)	-	(25.37)	0	6.51	32.28	25.37	262	0.00
5	6.49	32.278	6.90	25.37	10	6.47	32.28	25.37	262	0.03
20	6.45	32.274	6.97	25.37	20	6.45	32.27	25.37	262	0.05
30	6.44	32.278	6.92	25.37	30	6.44	32.28	25.37	262	0.08
50	6.16	32.283	7.00	25.41	50	6.16	32.28	25.41	258	0.13
75	6.14	32.286	6.98	25.42	75	6.14	32.29	25.42	258	0.20
100	6.18	32.299	6.88	25.42	100	6.18	32.30	25.42	258	0.26
125	6.63	32.507	6.41	25.53	125	6.63	32.51	25.53	248	0.32
150	6.02	32.604	6.59	25.68	150	6.02	32.60	25.68	234	0.38
175	6.26	32.750	5.96	25.77	175	6.26	32.75	25.77	226	0.44
200	6.76	33.218	4.12	26.07	200	6.76	33.22	26.07	198	0.50
225	6.52	33.549	3.44	26.36	225	6.52	33.55	26.36	170	0.54
250	6.38	33.697	2.98	26.50	250	6.38	33.70	26.50	158	0.58
300	5.84	33.866	2.70	26.70	300	5.84	33.87	26.70	139	0.66
393	4.95	33.941	2.26	26.86	400	4.90	33.95	26.87	123	0.79
491	4.49	34.015	1.15	26.97	500	4.45	34.02	26.98	113	0.91
590	4.09	34.074	0.90	27.06	600	4.06	34.08	27.07	105	1.02
788	3.74	34.228	0.53	27.22	700	3.82	34.15	27.15	98	1.12
984	3.35	34.319	0.45	27.33	800	3.72	34.24	27.23	92	1.22
1182	2.98	34.384	0.46	27.42	1000	3.32	34.33	27.34	82	1.39
1477	2.57	34.458	0.55	27.51	1200	2.95	34.39	27.42	74	1.55
1969	2.04	34.565	1.13	27.64	1500	2.54	34.46	27.52	66	1.76
2462	1.78	34.625	1.84	27.71	2000	2.02	34.57	27.65	54	2.07
2500	(1.77)a)	(34.628)a)	-	(27.71)	2500	1.77	34.63	27.71	49	2.33

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
58	HMCS OSHAWA; March 28, 1958; 0306 GCT; 57°35'N, 139°33'W; sounding, 1725 fm; wind, 110°, 10 kt; weather, partly cloudy; sea, calm.									
0	(6.46)a)	(32.242)a)	-	(25.34)	0	6.46	32.24	25.34	264	0.00
5	6.43	32.232	7.01	25.34	10	6.42	32.23	25.34	264	0.03
19	6.44	32.256	6.78	25.36	20	6.45	32.26	25.36	263	0.05
28	6.52	32.312	6.92	25.39	30	6.54	32.32	25.40	259	0.08
46	6.75	32.396	6.53	25.43	50	6.77	32.41	25.43	256	0.13
69	6.74	32.462	6.09	25.48	75	6.72	32.48	25.49	251	0.20
93	6.64	32.521	6.44	25.54	100	6.57	32.54	25.56	244	0.26
116	6.32	32.594	6.12	25.64	125	6.20	32.62	25.67	234	0.32
140	6.01	32.648	6.37	25.72	150	6.03	32.71	25.76	226	0.38
164	6.20	32.822	5.85	25.83	175	6.42	32.96	25.91	212	0.43
188	6.80	33.174	4.29	26.03	200	6.82	33.32	26.14	191	0.48
213	6.64	33.464	3.58	26.28	225	6.54	33.57	26.37	169	0.53
238	6.42	33.654	3.07	26.46	250	6.33	33.72	26.52	155	0.57
286	6.12	33.841	2.61	26.64	300	6.02	33.88	26.69	140	0.64
400	5.08	33.938	1.79	26.85	400	5.08	33.94	26.85	126	0.78
500	4.46	34.006	1.04	26.97	500	4.46	34.01	26.97	114	0.90
600	4.18	34.097	0.67	27.07	600	4.18	34.10	27.07	105	1.01
797	3.72	34.221	0.50	27.22	700	3.93	34.17	27.15	98	1.11
994	3.29	34.322	0.37	27.34	800	3.71	34.22	27.22	92	1.21
1193	2.91	34.399	0.43	27.44	1000	3.28	34.32	27.34	81	1.38
1491	2.43	34.485	0.60	27.55	1200	2.90	34.40	27.44	73	1.54
1989	1.93	34.590	1.29	27.67	1500	2.42	34.49	27.55	63	1.74
2488	1.72	34.638	1.99	27.73	2000	1.92	34.59	27.67	51	2.03
2500	(1.72)a)	(34.638)a)	-	(27.73)	2500	1.72	34.64	27.73	47	2.28
59	HMCS OSHAWA; March 28, 1958; 0918 GCT; 58°13'N, 139°17'W; sounding, 1150 fm; wind, 140°, 8 kt; weather, partly cloudy; sea, smooth.									
0	(6.09)a)	(32.022)a)	-	(25.21)	0	6.09	32.02	25.21	276	0.00
5	6.13	32.033	6.89	25.22	10	6.16	32.04	25.22	276	0.03
20	6.20	32.056	7.22	25.23	20	6.20	32.06	25.23	275	0.06
30	6.20	32.063	7.00	25.23	30	6.20	32.06	25.23	275	0.08
50	6.43	32.119	7.03	25.25	50	6.43	32.12	25.25	274	0.14
75	6.49	32.131	6.78	25.25	75	6.49	32.13	25.25	274	0.21
100	6.51	32.199	6.63	25.30	100	6.51	32.20	25.30	269	0.28
124	6.74	32.355	6.48	25.39	125	6.74	32.36	25.40	260	0.34
149	6.74	32.476	6.31	25.49	150	6.73	32.48	25.49	252	0.41
174	6.48	32.521	6.56	25.56	175	6.47	32.52	25.56	245	0.47
199	6.21	32.639	6.46	25.69	200	6.21	32.65	25.70	233	0.53
224	6.36	33.206	4.42	26.11	225	6.36	33.23	26.13	192	0.58
249	6.11	33.616	3.55	26.47	250	6.10	33.63	26.48	159	0.63
299	5.72	33.801	2.88	26.66	300	5.71	33.80	26.67	142	0.70
387	4.51	34.013	1.13	26.97	400	4.40	34.03	27.00	111	0.83
479	4.10	34.115	0.87	27.09	500	4.03	34.13	27.12	100	0.94
576	3.82	34.192	0.53	27.18	600	3.76	34.21	27.20	92	1.03
769	3.45	34.279	0.50	27.29	700	3.55	34.26	27.26	87	1.12
963	3.15	34.354	0.44	27.38	800	3.40	34.29	27.31	84	1.21
1158	2.83	34.409	0.53	27.45	1000	3.09	34.37	27.39	76	1.37
1453	2.32	34.507	0.81	27.57	1200	2.76	34.42	27.47	70	1.52
1845	1.94	34.582	1.33	27.66	1500	2.26	34.52	27.59	58	1.72
2000	(1.88)a)	(34.594)a)	-	(27.68)	2000	1.88	34.59	27.68	51	1.99

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

60

HMCS OSHAWA; March 28, 1958; 1125 GCT; 58°18'N, 139°18'W; sounding, 525 fm; wind, 140°, 8 kt; weather, partly cloudy; sea, smooth.

0	(6.10)a)	(32.046)a)	–	(25.23)	0	6.10	32.05	25.23	275	0.00
5	6.09	32.045	7.00	25.23	10	6.08	32.04	25.23	275	0.03
20	6.10	32.044	6.75	25.23	20	6.10	32.04	25.23	275	0.06
30	6.15	32.046	6.81	25.23	30	6.15	32.05	25.23	276	0.08
50	6.67	32.144	6.72	25.24	50	6.67	32.14	25.24	275	0.14
75	6.53	32.164	6.45	25.27	75	6.53	32.16	25.27	272	0.21
100	6.49	32.209	6.72	25.31	100	6.49	32.21	25.31	268	0.28
125	6.81	32.370	6.40	25.40	125	6.81	32.37	25.40	260	0.34
149	6.82	32.482	6.26	25.48	150	6.81	32.49	25.49	252	0.41
174	6.56	32.545	6.16	25.57	175	6.55	32.55	25.57	244	0.47
199	6.24	32.670	6.00	25.71	200	6.24	32.69	25.72	230	0.53
224	6.33	33.427	3.84	26.29	225	6.33	33.45	26.31	175	0.58
249	6.01	33.666	3.28	26.52	250	6.00	33.67	26.53	155	0.62
299	5.61	33.856	2.61	26.72	300	5.60	33.86	26.72	137	0.69
396	4.63	33.989	1.36	26.94	400	4.60	33.99	26.94	116	0.82
497	4.12	34.098	0.84	27.08	500	4.11	34.10	27.08	103	0.93
597	3.84	34.178	0.58	27.17	600	3.83	34.18	27.17	95	1.03
795	3.40	34.287	0.47	27.30	700	3.59	34.24	27.25	89	1.12
893	3.31	34.314	0.57	27.33	800	3.39	34.29	27.30	84	1.21

61

HMCS OSHAWA; March 28, 1958; 1222 GCT; 58°20'N, 139°18'W; sounding, 120 fm; wind, 140°, 8 kt; weather, clear; sea, smooth.

0	(6.21)a)	(32.058)a)	–	(25.23)	0	6.21	32.06	25.23	275	0.00
5	6.37	32.098	6.89	25.24	10	6.48	32.13	25.25	273	0.03
20	6.55	32.156	6.88	25.26	20	6.55	32.16	25.26	272	0.06
30	6.43	32.142	6.94	25.27	30	6.43	32.14	25.27	272	0.08
50	6.24	32.149	7.03	25.30	50	6.24	32.15	25.30	269	0.14
75	6.14	32.152	6.99	25.31	75	6.14	32.15	25.31	268	0.20
100	6.52	32.280	6.65	25.36	100	6.52	32.28	25.36	263	0.27
125	6.32	32.333	6.83	25.43	125	6.32	32.33	25.43	257	0.34
150	6.63	32.495	6.56	25.52	150	6.63	32.50	25.52	249	0.40
175	6.32	32.495	6.09	25.56	175	6.32	32.50	25.56	246	0.46
200	6.41	32.851	5.58	25.83	200	6.41	32.85	25.83	220	0.52

62

HMCS OSHAWA; March 28, 1958; 1603 GCT; 58°53'N, 139°03'W; sounding, 85 fm; wind, 050°, 10 kt; weather, partly cloudy; sea, slight.

0	6.00	32.228	7.41	25.39	0	6.00	32.23	25.39	260	0.00
10	6.14	32.212	7.44	25.36	10	6.14	32.21	25.36	263	0.03
20	6.16	32.226	7.31	25.37	20	6.16	32.23	25.37	262	0.05
30	6.24	32.299	7.01	25.41	30	6.24	32.30	25.41	258	0.08
50	6.44	32.388	6.62	25.46	50	6.44	32.39	25.46	254	0.13
75	6.29	32.545	6.63	25.60	75	6.29	32.55	25.60	240	0.19
100	6.02	32.577	6.55	25.66	100	6.02	32.58	25.66	235	0.25
125	5.66	32.625	6.54	25.74	125	5.66	32.63	25.74	227	0.31

63

HMCS OSHAWA; March 29, 1958; 0107 GCT; 59°42'N, 141°30'W; sounding, 30 fm; wind, 050°, 5 kt; weather, partly cloudy; sea, smooth.

0	5.20	32.065	7.06	25.35	0	5.20	32.06	25.35	263	0.00
10	5.27	32.042	7.27	25.33	10	5.27	32.04	25.33	264	0.03
20	5.25	32.054	7.34	25.34	20	5.25	32.05	25.34	265	0.05
30	5.34	32.086	7.04	25.35	30	5.34	32.09	25.35	263	0.08
40	5.37	32.094	7.00	25.36						
45	5.38	32.084	6.93	25.35						

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
64	HMCS OSHAWA; March 29, 1958; 0259 GCT; 59°28'N, 141°28'W; sounding, 90 fm; wind, 090°, 10 kt; weather, partly cloudy; sea, smooth.									
0	5.70	32.199	7.16	25.40	0	5.70	32.20	25.40	258	0.00
10	5.77	32.178	6.96	25.38	10	5.77	32.18	25.38	261	0.03
20	5.72	32.184	5.97	25.39	20	5.72	32.18	25.39	260	0.05
30	5.71	32.190	5.97	25.39	30	5.71	32.19	25.39	260	0.08
50	5.85	32.211	6.85	25.39	50	5.85	32.21	25.39	260	0.13
75	5.90	32.253	6.38	25.42	75	5.90	32.25	25.42	258	0.20
100	6.32	32.358	6.62	25.45	100	6.32	32.36	25.45	255	0.26
125	6.44	32.450	6.48	25.51	125	6.44	32.45	25.51	250	0.32
150	6.47	32.597	5.60	25.62	150	6.47	32.60	25.62	240	0.38
65	HMCS OSHAWA; March 29, 1958; 0430 GCT; 59°17'N, 142°14'W; sounding, 531 fm; wind, 110°, 10 kt; weather, partly cloudy; sea, slight.									
0	(5.89)a)	(32.197)a)	-	(25.38)	0	5.89	32.20	25.38	261	0.00
5	5.88	32.196	6.50	25.38	10	5.88	32.20	25.38	261	0.03
20	5.87	32.199	7.07	25.38	20	5.87	32.20	25.38	261	0.05
29	5.87	32.205	6.91	25.39	30	5.87	32.21	25.39	260	0.08
49	5.85	32.217	6.73	25.40	50	5.85	32.22	25.40	259	0.13
73	6.12	32.312	6.47	25.44	75	6.15	32.32	25.44	255	0.20
98	6.51	32.480	6.40	25.52	100	6.52	32.49	25.53	248	0.26
122	6.40	32.574	6.04	25.61	125	6.36	32.60	25.64	238	0.32
146	5.96	32.882	5.56	25.91	150	5.91	32.94	25.96	207	0.38
171	5.80	33.266	4.39	26.23	175	5.82	33.32	26.27	178	0.42
195	6.10	33.586	3.38	26.45	200	6.12	33.63	26.48	158	0.47
220	6.03	33.760	2.79	26.59	225	6.00	33.78	26.61	146	0.50
244	5.84	33.828	2.67	26.67	250	5.79	33.84	26.69	140	0.54
293	5.32	33.907	1.92	26.79	300	5.25	33.92	26.81	128	0.61
390	4.55	33.993	1.16	26.95	400	4.50	34.00	26.96	114	0.73
488	4.23	34.072	0.83	27.05	500	4.19	34.08	27.06	106	0.84
586	3.94	34.158	0.49	27.15	600	3.90	34.17	27.16	97	0.94
783	3.49	34.266	0.36	27.28	700	3.66	34.23	27.23	90	1.04
881	3.26	34.326	0.41	27.35	800	3.45	34.28	27.29	86	1.13
66	HMCS OSHAWA; March 29, 1958; 0709 GCT; 59°10'N, 142°20'W; sounding, 1116 fm; wind, 090°, 5 kt; weather, partly cloudy; sea, smooth.									
0	(5.81)a)	(32.213)a)	-	(25.40)	0	5.81	32.21	25.40	259	0.00
5	5.84	32.208	6.44	25.39	10	5.89	32.22	25.39	259	0.03
20	6.02	32.273	6.10	25.42	20	6.02	32.27	25.42	257	0.05
30	6.21	32.384	5.79	25.48	30	6.21	32.38	25.48	251	0.08
50	6.22	32.510	6.33	25.58	50	6.22	32.51	25.58	242	0.13
75	5.80	32.578	6.53	25.69	75	5.80	32.58	25.69	232	0.19
100	5.42	32.596	5.75	25.75	100	5.42	32.60	25.75	227	0.24
125	5.36	32.657	6.43	25.80	125	5.36	32.66	25.80	222	0.30
150	5.87	33.199	4.59	26.17	150	5.87	33.20	26.17	187	0.35
175	6.09	33.608	3.37	26.46	175	6.09	33.61	26.46	160	0.40
200	5.90	33.756	3.01	26.60	200	5.90	33.76	26.60	147	0.44
225	5.68	33.840	2.55	26.70	225	5.68	33.84	26.70	138	0.47
250	5.44	33.865	2.31	26.75	250	5.44	33.86	26.75	134	0.50
300	5.02	33.922	1.92	26.84	300	5.02	33.92	26.84	125	0.57
400	4.44	34.028	1.13	26.99	400	4.44	34.03	26.99	112	0.69
500	4.14	34.096	0.68	27.08	500	4.14	34.10	27.08	104	0.80
600	3.92	34.168	0.47	27.15	600	3.92	34.17	27.15	97	0.90
800	3.50	34.282	0.46	27.29	700	3.71	34.23	27.23	91	1.00
1000	3.09	34.364	0.41	27.39	800	3.50	34.28	27.29	86	1.08
1200	2.72	34.434	0.50	27.48	1000	3.09	34.36	27.39	76	1.25
1500	2.30	34.512	0.78	27.58	1200	2.72	34.43	27.48	68	1.40
2000	1.93	34.587	1.38	27.67	1500	2.30	34.51	27.58	59	1.59
					2000	1.93	34.59	27.67	52	1.87

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

67

HMCS OSHAWA; March 29, 1958; 1213 GCT; 58°44'N, 142°48'W; sounding, 1700 fm; wind, 070°, 8 kt; weather, partly cloudy; sea, smooth.

0	(5.81)a)	(32.250)a)	-	(25.43)	0	5.81	32.25	25.43	256	0.00
5	5.87	32.280	7.10	25.44	10	5.91	32.30	25.46	253	0.03
20	5.97	32.335	6.98	25.48	20	5.97	32.33	25.48	252	0.05
30	5.98	32.342	7.11	25.48	30	5.98	32.34	25.48	251	0.08
50	6.13	32.455	6.14	25.55	50	6.13	32.45	25.55	245	0.13
75	6.19	32.590	6.36	25.65	75	6.19	32.59	25.65	236	0.19
100	5.89	32.642	6.40	25.73	100	5.89	32.64	25.73	229	0.24
125	5.96	32.727	6.07	25.79	125	5.96	32.73	25.79	223	0.30
150	6.13	32.913	5.38	25.91	150	6.13	32.91	25.91	212	0.36
175	5.80	33.212	4.77	26.19	175	5.80	33.21	26.19	186	0.41
200	6.09	33.569	3.56	26.43	200	6.09	33.57	26.43	163	0.45
225	5.82	33.716	4.32	26.58	225	5.82	33.72	26.58	149	0.49
250	5.71	33.808	2.90	26.67	250	5.71	33.81	26.67	141	0.53
300	5.44	(33.931)b)	2.30	(26.80)	300	5.44	33.93	26.80	129	0.60
386	4.85	33.950	1.31	26.88	400	4.77	33.96	26.90	120	0.72
483	4.42	34.026	1.06	26.99	500	4.36	34.04	27.01	111	0.84
579	4.10	34.104	0.76	27.09	600	4.04	34.12	27.10	102	0.94
771	3.66	34.231	0.44	27.23	700	3.79	34.19	27.18	95	1.04
965	3.19	34.341	0.41	27.36	800	3.59	34.25	27.25	89	1.14
1152	2.86	34.398	0.46	27.44	1000	3.12	34.36	27.38	77	1.31
1435	2.44	34.480	0.69	27.54	1200	2.78	34.41	27.46	71	1.46
1912	1.93	34.586	1.36	27.67	1500	2.36	34.50	27.56	61	1.66
2390	1.75	34.648	1.90	27.73	2000	1.87	34.60	27.68	50	1.94
2500	(1.76)a)	(34.656)a)	-	(27.74)	2500	1.76	34.66	27.74	46	2.18

68

HMCS OSHAWA; March 29, 1958; 1740 GCT; 58°10'N, 143°33'W; sounding, 1850 fm; wind, 140°, 10 kt; weather, partly cloudy; sea, slight.

0	(6.26)	(32.475)	(7.87)	(25.55)	0	6.26	32.48	25.55	0.00
5	6.26	32.480	7.74	25.55	10	6.26	32.48	25.56	0.02
20	6.26	32.487	7.50	25.56	20	6.26	32.49	25.56	0.05
30	6.26	32.485	7.21	25.56	30	6.26	32.48	25.56	0.07
50	6.27	32.504	7.20	25.57	50	6.27	32.50	25.57	0.12
75	5.98	32.599	7.04	25.68	75	5.98	32.60	25.68	0.18
99	5.37	32.651	6.88	25.80	100	5.36	32.65	25.80	0.24
124	5.12	32.725	7.06	25.88	125	5.19	32.75	25.90	0.29
149	6.80	33.374	4.13	26.19	150	6.78	33.38	26.20	0.34
174	6.31	33.573	3.74	26.41	175	6.30	33.58	26.41	0.39
199	6.12	33.692	3.43	26.53	200	6.13	33.70	26.53	0.43
223	6.27	33.839	2.98	26.62	250	5.84	33.86	26.70	0.50
248	5.86	33.862	2.86	26.69	300	5.35	33.92	26.80	0.57
298	5.37	33.915	2.25	26.79	400	4.68	33.97	26.92	0.70
397	4.69	33.971	1.42	26.92	500	4.30	34.06	27.03	0.81
495	4.32	34.054	0.95	27.02	600	4.02	34.14	27.12	0.92
594	4.04	34.134	0.35	27.12	700	3.78	34.21	27.20	1.01
791	3.58	34.262	0.46	27.26	800	3.56	34.27	27.27	1.10
986	3.22	34.346	0.41	27.37	1000	3.20	34.35	27.37	1.27
1182	2.96	34.402	0.44	27.43	1200	2.93	34.41	27.44	1.43
1478	2.48	34.478	0.62	27.54	1500	2.46	34.48	27.54	1.63
1975	2.00	34.582	1.25	27.66	2000	1.99	34.58	27.66	1.93
2470	1.78	34.624	1.86	27.71	2500	1.77	34.63	27.71	2.18
2500	(1.77)	(34.626)	(1.89)	(27.71)					

a) Value extrapolated by three-point parabolic method.
b) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
69	HMCS OSHAWA; March 29, 1958; 2329 GCT; 57°42'N, 144°28'W; sounding, 2000 fm; wind, 120°, 8 kt; weather, cloudy; sea, slight.									
0	(5.23)a)	(32.678)a)	-	(25.83)	0	5.23	32.68	25.83	217	0.00
5	5.28	32.672	7.12	25.82	10	5.29	32.67	25.82	219	0.02
20	5.17	32.672	7.19	25.84	20	5.17	32.67	25.84	217	0.04
29	4.92	32.685	7.24	25.87	30	4.90	32.69	25.88	214	0.07
49	4.66	32.730	7.21	25.94	50	4.65	32.73	25.94	208	0.11
73	4.41	32.788	6.88	26.01	75	4.39	32.81	26.03	199	0.16
98	4.26	33.254	5.02	26.39	100	4.25	33.28	26.42	163	0.20
122	4.07	33.501	4.82	26.61	125	4.06	33.53	26.64	142	0.24
147	4.07	33.745	2.20	26.80	150	4.07	33.77	26.82	125	0.28
171	4.12	33.858	1.48	26.89	175	4.12	33.87	26.90	118	0.31
195	4.10	33.924	1.02	26.94	200	4.09	33.93	26.95	113	0.34
219	4.07	33.953	0.74	26.97	225	4.06	33.96	26.98	111	0.36
243	4.02	33.984	0.56	27.00	250	4.01	33.99	27.01	108	0.39
290	3.96	34.030	0.41	27.04	300	3.94	34.04	27.05	104	0.45
387	3.78	34.112	0.48	27.12	400	3.76	34.12	27.13	97	0.55
485	3.68	34.178	0.49	27.19	500	3.65	34.19	27.20	92	0.64
584	3.46	34.242	0.38	27.26	600	3.43	34.25	27.27	86	0.73
780	3.19	34.330	0.40	27.36	700	3.27	34.30	27.32	81	0.82
979	2.87	34.394	0.46	27.44	800	3.16	34.34	27.36	78	0.90
1180	2.61	34.450	0.55	27.50	1000	2.84	34.40	27.44	71	1.05
1478	2.29	34.520	0.77	27.59	1200	2.59	34.46	27.51	65	1.19
1975	1.90	34.600	1.43	27.68	1500	2.27	34.52	27.59	58	1.37
2474	1.70	34.646	2.04	27.73	2000	1.89	34.60	27.68	50	1.65
2500	(1.69)a)	(34.647)a)	-	(27.73)	2500	1.69	34.65	27.73	46	1.89
70	HMCS OSHAWA; March 30, 1958; 0507 GCT; 57°00'N, 145°00'W; sounding, 1980 fm; wind, 120°, 18 kt; weather, moderate rain showers; sea, slight.									
0	(5.00)a)	(32.633)a)	-	(25.82)	0	5.00	32.63	25.82	218	0.00
5	5.01	32.654	7.11	25.84	10	5.01	32.67	25.85	216	0.02
20	5.00	32.711	7.03	25.89	20	5.00	32.71	25.89	213	0.04
30	4.96	32.745	7.01	25.92	30	4.96	32.75	25.92	210	0.06
50	4.94	32.792	6.98	25.96	50	4.94	32.79	25.96	206	0.11
75	4.53	33.043	7.02	26.20	75	4.53	33.04	26.20	183	0.16
99	4.28	33.299	6.50	26.43	100	4.28	33.31	26.43	161	0.20
123	4.50	33.384	4.86	26.47	125	4.49	33.39	26.48	157	0.24
148	4.17	33.527	4.24	26.62	150	4.15	33.54	26.63	143	0.28
172	4.02	33.756	2.60	26.82	175	4.01	33.78	26.83	124	0.31
197	4.00	33.859	1.89	26.90	200	4.00	33.87	26.91	117	0.34
222	4.00	33.877	1.62	26.92	225	4.00	33.88	26.92	116	0.37
246	4.00	33.939	1.25	26.96	250	4.00	33.95	26.97	112	0.40
296	3.94	33.996	0.66	27.02	300	3.94	34.00	27.02	107	0.45
400	3.94	(34.119)b)	0.60	(27.11)	400	3.94	34.12	27.11	99	0.56
500	3.69	34.243	0.52	27.24	500	3.69	34.24	27.24	88	0.65
600	3.52	34.269	0.60	27.28	600	3.52	34.27	27.28	85	0.74
800	3.20	34.332	0.57	27.36	700	3.36	34.30	27.31	82	0.82
1000	2.97	34.405	0.54	27.44	800	3.20	34.33	27.36	79	0.91
1202	2.64	34.464	0.54	27.51	1000	2.97	34.41	27.44	72	1.06
1504	2.25	34.547	0.80	27.61	1200	2.64	34.46	27.51	65	1.20
2005	1.86	34.608	1.53	27.69	1500	2.25	34.55	27.61	56	1.38
2506	1.68	34.650	2.22	27.74	2000	1.86	34.61	27.69	49	1.65
					2500	1.68	34.65	27.74	46	1.90

a) Value extrapolated by three-point parabolic method.
b) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

71

HMCS OSHAWA; March 30, 1958; 1122 GCT; 57°09'N, 146°05'W; sounding, 2000 fm; wind, 150°, 15 kt; weather, cloudy; sea, slight.

0	(4.53)a)	(32.696)a)	-	(25.92)	0	4.53	32.70	25.92	209	0.00
5	4.53	32.692	7.13	25.92	10	4.53	32.69	25.92	209	0.02
19	4.53	32.688	7.13	25.92	20	4.53	32.69	25.92	210	0.04
28	4.54	32.692	7.19	25.92	30	4.54	32.69	25.92	209	0.06
47	4.53	32.687	7.32	25.92	50	4.53	32.69	25.92	210	0.10
71	4.52	32.708	7.27	25.93	75	4.52	32.71	25.94	208	0.16
94	4.48	32.701	7.27	25.93	100	4.49	32.74	25.97	206	0.21
118	4.58	32.974	6.08	26.14	125	4.57	33.11	26.25	179	0.26
141	4.46	33.536	3.86	26.60	150	4.44	33.65	26.69	138	0.30
165	4.45	33.710	3.15	26.74	175	4.48	33.77	26.78	129	0.33
189	4.56	33.831	2.48	26.82	200	4.51	33.87	26.85	122	0.36
212	4.37	33.890	1.85	26.89	225	4.30	33.91	26.91	117	0.39
236	4.26	33.923	1.44	26.93	250	4.22	33.94	26.94	114	0.42
283	4.19	33.976	1.08	26.97	300	4.16	33.99	26.99	110	0.48
365	4.01	34.063	0.71	27.06	400	3.96	34.09	27.09	101	0.59
456	3.90	34.136	0.53	27.13	500	3.81	34.17	27.17	95	0.68
547	3.69	34.201	0.48	27.20	600	3.58	34.23	27.24	89	0.78
730	3.35	34.291	0.40	27.31	700	3.40	34.28	27.30	84	0.86
927	3.01	34.368	0.44	27.40	800	3.23	34.32	27.34	80	0.95
1129	2.74	34.443	0.49	27.49	1000	2.90	34.40	27.43	72	1.10
1438	2.32	34.508	0.81	27.57	1200	2.64	34.46	27.51	65	1.24
1955	1.92	34.599	1.42	27.68	1500	2.25	34.52	27.59	58	1.43
2450	1.69	34.638	2.07	27.73	2000	1.89	34.60	27.69	50	1.70
2500	(1.68)a)	(34.639)a)	-	(27.73)	2500	1.68	34.64	27.73	47	1.95

72

HMCS OSHAWA; March 30, 1958; 1743 GCT; 57°15'N, 147°25'W; sounding, 2600 fm; wind, 140°, 50 kt; weather, intermittent slight rain; sea, very rough.

0	(4.42)a)	(32.697)a)	-	(25.94)	0	4.42	32.70	25.94	208	0.00
5	4.42	32.692	6.99	25.93	10	4.42	32.69	25.93	208	0.02
19	4.42	32.683	7.44	25.93	20	4.42	32.68	25.93	209	0.04
28	4.43	(32.681)b)	6.59	(25.92)	30	4.43	32.68	25.92	209	0.06
47	4.42	(32.685)b)	7.06	(25.93)	50	4.42	32.69	25.93	209	0.10
70	4.42	32.706	7.21	25.94	75	4.44	32.73	25.96	206	0.16
94	4.58	(32.884)b)	6.14	(26.07)	100	4.60	32.95	26.12	191	0.21
118	4.61	(33.222)b)	4.35	(26.33)	125	4.68	33.35	26.43	162	0.25
141	4.92	33.696	3.38	26.67	150	4.97	33.79	26.74	133	0.29
165	4.96	33.837	2.67	26.78	175	4.91	33.86	26.81	127	0.32
188	4.78	33.862	2.25	26.82	200	4.71	33.88	26.84	124	0.35
212	4.66	33.904	-	26.87	225	4.53	33.92	26.89	119	0.38
235	4.41	33.926	1.59	26.91	250	4.32	33.94	26.93	115	0.41
282	4.33	33.986	1.10	26.97	300	4.45	34.01	26.98	112	0.47
300	(4.45)a)	(34.014)a)	-	(26.98)						

a) Value extrapolated by three-point parabolic method.
b) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
74	HMCS OSHAWA; March 31, 1958; 1941 GCT; 57°29'N, 149°23'W; sounding, 1000 fm; wind, 100°, 10 kt; weather, overcast; sea, slight.[a]									
0	(4.77)b)	(32.636)b)	-	(25.85)	0	4.77	32.64	25.85	216	0.00
5	4.77	32.634	6.78	25.85	10	4.77	32.63	25.85	216	0.02
20	4.77	32.632	8.01	25.85	20	4.77	32.63	25.85	216	0.04
30	4.77	32.635	6.76	25.85	30	4.77	32.64	25.85	216	0.06
50	4.76	32.637	6.90	25.85	50	4.76	32.64	25.85	216	0.11
75	4.70	32.721	6.32	25.93	75	4.70	32.72	25.93	209	0.16
100	4.80	33.061	5.35	26.18	100	4.80	33.06	26.18	185	0.21
125	4.78	33.407	4.28	26.46	125	4.78	33.41	26.46	159	0.26
150	4.69	33.642	3.38	26.66	150	4.69	33.64	26.66	141	0.29
172	4.66	33.789	2.28	26.78	175	4.66	33.80	26.79	129	0.33
196	4.64	33.830	1.64	26.81	200	4.64	33.84	26.82	126	0.36
300	4.42	33.897	-	26.89	225	4.60	33.87	26.84	124	0.39
343	4.15	34.003	0.88	27.00	250	4.55	33.89	26.87	122	0.42
441	4.00	34.080	0.58	27.08	300	4.42	33.90	26.89	120	0.48
539	3.84	34.150	0.46	27.15	400	3.98	34.08	27.08	103	0.60
735	3.46	34.273	0.40	27.28	500	3.90	34.12	27.12	100	0.70
931	3.14	34.347	0.35	27.37	600	3.73	34.19	27.19	93	0.80
1000	(3.04)b)	(34.361)b)	-	(27.39)	700	3.53	34.25	27.26	87	0.89
					800	3.35	34.30	27.32	82	0.97
					1000	3.04	34.36	27.39	76	1.13
75	HMCS OSHAWA; March 31, 1958; 2346 GCT; 57°25'N, 149°57'W; sounding, 893 fm; wind, 130°, 10 kt; weather, cloudy; sea, slight.									
0	(5.51)b)	(32.535)b)	-	(25.69)	0	5.51	32.54	25.69	231	0.00
5	5.40	32.542	6.66	25.71	10	5.31	32.55	25.72	228	0.02
20	5.21	32.552	6.90	25.74	20	5.21	32.55	25.74	227	0.05
30	5.21	32.550	6.93	25.73	30	5.21	32.55	25.73	227	0.07
50	5.00	32.597	7.07	25.80	50	5.00	32.60	25.80	222	0.11
74	4.79	32.621	6.90	25.84	75	4.78	32.62	25.84	217	0.17
98	4.44	32.679	6.89	25.92	100	4.44	32.69	25.93	209	0.22
123	4.80	32.866	6.15	26.03	125	4.83	32.89	26.05	198	0.27
148	5.16	33.332	4.54	26.36	150	5.20	33.36	26.38	167	0.32
172	5.84	33.660	3.20	26.54	175	5.86	33.69	26.56	151	0.36
197	5.62	33.825	2.70	26.69	200	5.59	33.84	26.71	137	0.40
221	5.34	33.872	2.35	26.76	225	5.30	33.88	26.77	131	0.43
246	5.08	33.898	2.24	26.82	250	5.04	33.90	26.82	126	0.46
295	4.73	33.942	1.72	26.89	300	4.70	33.95	26.90	120	0.52
400	4.26	34.020	1.01	27.00	400	4.26	34.02	27.00	110	0.64
500	3.91	34.113	0.57	27.11	500	3.91	34.11	27.11	100	0.75
600	3.74	34.180	0.49	27.18	600	3.74	34.18	27.18	94	0.84
800	3.38	34.302	0.43	27.31	700	3.56	34.24	27.25	88	0.94
1000	3.05	34.372	0.43	27.40	800	3.38	34.30	27.31	83	1.02
					1000	3.05	34.37	27.40	75	1.18

a) Station 73 missed from numbering sequence.

b) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
HMCS OSHAWA; April 1, 1958; 0317 GCT; 57°32'N, 149°49'W; sounding, 600 fm; wind, 100°, 10 kt; weather, overcast; sea, moderate.										76
0	(5.61)a)	(32.514)a)	-	(25.66)	0	5.61	32.51	25.66	234	0.00
5	5.62	32.502	7.25	25.65	10	5.62	32.50	25.64	236	0.02
20	5.59	32.496	7.10	25.65	20	5.59	32.50	25.65	235	0.05
29	5.53	32.513	7.16	25.67	30	5.52	32.51	25.67	233	0.07
49	5.44	32.524	6.61	25.69	50	5.44	32.52	25.69	232	0.12
73	5.43	32.516	6.68	25.68	75	5.44	32.52	25.69	232	0.18
98	5.60	32.644	6.15	25.76	100	5.60	32.66	25.77	224	0.23
122	5.49	32.831	5.88	25.92	125	5.47	32.85	25.95	208	0.29
147	5.22	33.017	5.61	26.10	150	5.25	33.05	26.13	191	0.34
171	5.88	33.390	4.09	26.32	175	5.83	33.43	26.36	170	0.38
196	4.79	33.526	4.14	26.55	200	4.72	33.56	26.59	148	0.42
220	4.82	33.750	3.16	26.73	225	4.84	33.78	26.75	132	0.46
244	4.94	33.874	2.31	26.81	250	4.95	33.89	26.83	126	0.49
293	4.88	33.917	1.94	26.85	300	4.85	33.92	26.86	123	0.55
351	4.40	33.986	1.00	26.96	400	4.18	34.03	27.02	109	0.67
445	4.14	34.057	0.92	27.04	500	4.01	34.10	27.09	102	0.78
534	3.94	34.131	0.62	27.12	600	3.76	34.18	27.18	94	0.88
712	3.37	34.249	0.47	27.27	700	3.42	34.24	27.26	87	0.97
890	3.16	34.347	0.12	27.37	800	3.22	34.30	27.33	81	1.05
HMCS OSHAWA; April 1, 1958; 0732 GCT; 57°36'N, 150°18'W; sounding, 98 fm; wind, 100°, 10 kt; weather, cloudy; sea, slight.										77
0	(5.43)a)	(32.512)a)	-	(25.68)	0	5.43	32.51	25.68	232	0.00
5	5.43	32.511	5.95	25.68	10	5.43	32.51	25.68	232	0.02
20	5.43	32.510	6.79	25.68	20	5.43	32.51	25.68	232	0.05
30	5.42	32.511	6.91	25.68	30	5.42	32.51	25.68	232	0.07
50	5.42	32.523	6.48	25.69	50	5.42	32.52	25.69	232	0.12
75	5.44	32.525	6.04	25.69	75	5.44	32.53	25.69	232	0.18
99	5.51	32.599	5.98	25.74	100	5.51	32.60	25.74	227	0.23
124	5.61	32.801	5.43	25.89	125	5.61	32.81	25.89	213	0.29
148	5.60	32.914	4.68	25.98	150	5.59	32.92	25.98	205	0.34
150	(5.59)a)	(32.920)a)	-	(25.98)						
HMCS OSHAWA; April 1, 1958; 1218 GCT; 57°42'N, 151°06'W; sounding, 40 fm; wind, 180°, 8 kt; weather, cloudy; sea, slight.										78
0	4.30	32.436	5.33	25.74	0	4.30	32.44	25.74	226	0.00
10	4.42	32.399	5.79	25.70	10	4.42	32.40	25.70	230	0.02
20	4.48	32.411	6.31	25.70	20	4.48	32.41	25.70	230	0.05
30	4.52	32.428	6.43	25.71	30	4.52	32.43	25.71	229	0.07
40	4.56	32.438	6.23	25.72	50	4.55	32.44	25.72	229	0.12
50	4.55	32.439	4.02	25.72						
HMCS OSHAWA; April 4, 1958; 1355 GCT; 55°56'N, 155°01'W; sounding, 78 fm; wind, 140°, 10 kt; weather, intermittent moderate rain; sea, slight.										79
0	4.90	32.440	7.10	25.68	0	4.90	32.44	25.68	232	0.00
9	5.20	32.458	7.17	25.66	10	5.22	32.46	25.66	234	0.02
19	5.21	32.458	7.12	25.66	20	5.21	32.46	25.66	234	0.05
28	5.20	32.458	7.20	25.66	30	5.20	32.46	25.66	234	0.07
47	5.20	32.459	7.11	25.66	50	5.20	32.46	25.66	234	0.12
72	5.21	32.461	7.17	25.66	75	5.21	32.46	25.67	234	0.18
94	5.19	32.504	6.93	25.70	100	5.20	32.52	25.71	230	0.24
117	5.25	32.566	6.63	25.74	125	5.29	32.59	25.76	226	0.29
125	(5.29)a)	(32.592)a)	-	(25.76)						

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
80	HMCS OSHAWA; April 4, 1958; 1525 GCT; 55°55'N, 154°54'W; sounding, 100 fm; wind, 180°, 10 kt; weather, overcast; sea, slight.									
0	(5.35)a)	(32.494)a)	-	(25.67)	0	5.35	32.49	25.67	232	0.00
5	5.35	32.489	7.19	25.67	10	5.35	32.48	25.67	233	0.02
20	5.35	32.480	7.19	25.66	20	5.35	32.48	25.66	234	0.05
30	5.35	32.480	6.93	25.66	30	5.35	32.48	25.66	234	0.07
49	5.36	32.477	7.02	25.66	50	5.36	32.48	25.66	234	0.12
74	5.34	32.480	7.04	25.66	75	5.34	32.48	25.66	234	0.18
99	5.32	32.478	7.07	25.67	100	5.32	32.48	25.67	234	0.24
124	5.30	32.490	7.02	25.68	125	5.30	32.49	25.68	233	0.29
149	5.33	32.581	6.56	25.75	150	5.33	32.59	25.75	227	0.35
174	5.29	32.745	5.97	25.88	175	5.29	32.75	25.89	214	0.41
175	(5.29)a)	(32.753)a)	-	(25.89)						
81	HMCS OSHAWA; April 4, 1958; 1940 GCT; 55°30'N, 154°21'W; sounding, 555 fm; wind, 130°, 12 kt; weather, intermittent slight rain; sea, slight.									
0	(4.90)a)	(32.622)a)	-	(25.83)	0	4.90	32.62	25.83	218	0.00
5	4.87	32.612	7.39	25.82	10	4.82	32.61	25.83	218	0.02
19	4.67	32.647	7.32	25.87	20	4.65	32.65	25.88	213	0.04
29	4.43	32.730	7.34	25.96	30	4.42	32.74	25.97	205	0.06
48	4.50	32.875	7.28	26.07	50	4.54	32.90	26.09	194	0.10
72	5.31	33.361	4.51	26.36	75	5.35	33.41	26.39	165	0.15
96	5.27	33.614	3.73	26.57	100	5.23	33.64	26.60	146	0.19
120	4.85	33.713	3.20	26.69	125	4.82	33.74	26.72	135	0.22
144	4.86	33.847	2.55	26.80	150	4.81	33.86	26.82	126	0.26
167	4.58	33.862	2.23	26.84	175	4.52	33.87	26.85	122	0.29
191	4.47	33.881	1.98	26.87	200	4.46	33.89	26.88	120	0.32
215	4.48	33.926	1.64	26.90	225	4.47	33.94	26.91	117	0.35
239	4.45	33.948	1.43	26.92	250	4.43	33.96	26.94	115	0.38
287	4.32	33.993	1.16	26.97	300	4.28	34.00	26.99	111	0.44
390	3.97	34.069	0.65	27.07	400	3.94	34.08	27.08	102	0.54
494	3.60	34.126	0.50	27.15	500	3.59	34.13	27.16	96	0.64
585	3.56	34.239	0.43	27.25	600	3.54	34.25	27.26	87	0.74
780	3.15	34.327	0.40	27.36	700	3.37	34.32	27.33	81	0.82
975	3.04	34.352	0.38	27.39	800	3.12	34.33	27.36	78	0.90
1000	(3.05)a)	(34.351)a)	-	(27.38)	1000	3.05	34.35	27.38	77	1.06
82	HMCS OSHAWA; April 4, 1958; 2303 GCT; 55°21'N, 154°03'W; sounding, 2100 fm; wind, 060°, 10 kt; weather, cloudy; sea, slight.									
0	(4.46)a)	(32.749)a)	-	(25.97)	0	4.46	32.75	25.97	204	0.00
5	4.39	32.756	7.25	25.99	10	4.34	32.76	26.00	202	0.02
20	4.26	32.769	7.32	26.01	20	4.26	32.77	26.01	201	0.04
30	4.23	32.772	7.31	26.02	30	4.23	32.77	26.02	200	0.06
50	4.16	32.780	7.27	26.03	50	4.16	32.78	26.03	199	0.10
74	4.01	32.948	6.82	26.18	75	4.01	32.96	26.19	184	0.15
99	4.15	33.447	4.03	26.56	100	4.15	33.46	26.57	148	0.19
124	4.21	33.758	2.16	26.80	125	4.21	33.77	26.81	126	0.23
149	4.11	33.844	1.52	26.88	150	4.11	33.85	26.88	119	0.26
174	4.07	33.917	0.97	26.94	175	4.07	33.92	26.94	114	0.29
199	4.04	33.966	0.69	26.98	200	4.04	33.97	26.98	110	0.31
224	4.01	33.992	0.55	27.01	225	4.01	33.99	27.01	108	0.34
248	3.98	34.021	0.52	27.03	250	3.98	34.02	27.03	106	0.37
298	3.90	34.060	0.46	27.07	300	3.90	34.06	27.07	102	0.42
395	3.78	34.129	0.48	27.14	400	3.77	34.13	27.14	96	0.52
500	3.61	34.204	0.48	27.21	500	3.61	34.20	27.21	90	0.62
600	3.37	34.272	0.34	27.29	600	3.37	34.27	27.29	84	0.70
815	3.06	34.350	0.39	27.38	700	3.19	34.32	27.35	79	0.78
					800	3.07	34.35	27.38	76	0.86

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

HMCS OSHAWA; April 5, 1958; 0442 GCT; 54°48'N, 153°33'W; sounding, 2350 fm; wind, 030°, 10 kt; weather, cloudy; sea, slight. 83

0	(4.17)a)	(32.864)a)	–	(26.10)	0	4.17	32.86	26.10	192	0.00
5	4.07	32.865	7.31	26.11	10	3.99	32.87	26.11	191	0.02
20	3.89	32.866	7.28	26.12	20	3.89	32.87	26.12	190	0.04
30	3.86	32.866	7.35	26.13	30	3.86	32.87	26.13	190	0.06
50	3.79	32.867	7.24	26.13	50	3.79	32.87	26.13	189	0.10
75	3.80	32.869	7.25	26.14	75	3.80	32.87	26.14	189	0.14
100	3.98	33.315	4.68	26.47	100	3.98	33.31	26.47	158	0.19
125	4.12	33.656	2.64	26.73	125	4.12	33.66	26.73	134	0.22
150	4.11	33.833	1.51	26.87	150	4.11	33.83	26.87	120	0.26
175	4.05	33.904	0.99	26.93	175	4.05	33.90	26.93	115	0.28
200	4.01	33.945	0.71	26.97	200	4.01	33.94	26.97	111	0.31
225	4.01	33.985	0.52	27.00	225	4.01	33.98	27.00	109	0.34
250	(3.99)b)	34.014	0.48	(27.03)	250	3.99	34.01	27.03	106	0.37
300	3.91	34.077	0.44	27.08	300	3.91	34.08	27.08	101	0.42
389	3.77	34.145	0.41	27.15	400	3.75	34.15	27.16	95	0.52
494	3.59	34.204	0.40	27.22	500	3.58	34.21	27.22	90	0.61
593	3.42	34.264	0.40	27.28	600	3.41	34.27	27.28	84	0.70
809	3.01	34.354	0.41	27.39	700	3.22	34.32	27.34	79	0.78
989	2.76	34.417	0.49	27.46	800	3.03	34.35	27.39	75	0.86
1100	2.61	34.438	0.58	27.49	1000	2.74	34.42	27.47	68	1.01
1285	2.37	34.491	0.78	27.56	1200	2.48	34.46	27.53	64	1.14
1482	2.17	34.529	0.91	27.60	1500	2.15	34.53	27.61	56	1.32
1500	(2.15)a)	(34.532)a)	–	(27.61)						

HMCS OSHAWA; April 5, 1958; 1015 GCT; 54°34'N, 153°00'W; sounding, 2270 fm; wind, 020°, 5 kt; weather, cloudy; sea, slight. 84

0	(3.94)a)	(32.862)a)	–	(26.12)	0	3.94	32.86	26.12	190	0.00
5	3.91	32.868	7.37	26.12	10	3.89	32.87	26.13	189	0.02
20	3.86	32.881	7.26	26.14	20	3.86	32.88	26.14	188	0.04
30	3.85	32.885	7.26	26.14	30	3.85	32.89	26.14	188	0.06
50	3.79	32.886	7.21	26.15	50	3.79	32.89	26.15	188	0.10
75	3.78	32.892	7.27	26.16	75	3.78	32.89	26.16	187	0.14
100	3.83	33.020	6.51	26.25	100	3.83	33.02	26.25	178	0.19
125	4.31	33.634	2.96	26.69	125	4.31	33.63	26.69	137	0.23
150	4.51	33.856	1.78	26.85	150	4.51	33.86	26.85	123	0.26
175	4.29	33.913	1.27	26.91	175	4.29	33.91	26.91	116	0.29
200	4.15	33.941	0.99	26.95	200	4.15	33.94	26.95	113	0.32
225	4.03	33.960	0.75	26.98	225	4.03	33.96	26.98	111	0.35
250	4.02	33.994	0.54	27.01	250	4.02	33.99	27.01	108	0.38
300	3.93	34.062	0.74	27.07	300	3.93	34.06	27.07	103	0.43
384	3.79	34.130	0.46	27.14	400	3.76	34.14	27.15	96	0.53
492	3.60	34.206	0.45	27.22	500	3.58	34.21	27.22	90	0.62
591	3.39	34.262	0.46	27.28	600	3.37	34.27	27.29	84	0.71
803	2.97	34.354	0.49	27.39	700	3.17	34.31	27.34	79	0.79
985	2.72	34.415	0.54	27.47	800	2.98	34.35	27.39	75	0.87
1094	2.55	34.441	0.65	27.50	1000	2.70	34.42	27.47	68	1.01
1280	2.35	34.479	0.75	27.55	1200	2.42	34.46	27.53	63	1.15
1478	2.19	34.523	0.95	27.60	1500	2.18	34.53	27.60	57	1.33
1500	(2.18)a)	(34.528)a)	–	(27.60)						

a) Value extrapolated by three-point parabolic method.
b) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
85	HMCS OSHAWA; April 5, 1958; 1644 GCT; 54°02'N, 152°39'W; sounding, missing; wind, 200°, 15 kt; weather, cloudy; sea, slight.									
0	(3.87)a)	(32.896)a)	-	(26.15)	0	3.87	32.90	26.15	187	0.00
5	3.86	32.895	7.28	26.15	10	3.85	32.89	26.15	187	0.02
20	3.83	32.894	7.25	26.15	20	3.83	32.89	26.15	187	0.04
30	3.81	32.894	7.10	26.15	30	3.81	32.89	26.15	187	0.06
50	3.75	32.906	6.96	26.17	50	3.75	32.91	26.17	186	0.09
75	3.75	32.893	7.21	26.16	75	3.75	32.89	26.16	187	0.14
99	3.83	33.143	5.72	26.35	100	3.84	33.16	26.36	168	0.19
124	4.00	33.616	2.98	26.71	125	4.00	33.63	26.72	134	0.22
148	4.01	33.780	1.81	26.84	150	4.01	33.79	26.85	122	0.26
173	4.05	33.883	1.10	26.92	175	4.05	33.89	26.92	116	0.29
198	4.04	33.941	0.85	26.96	200	4.04	33.94	26.97	112	0.32
223	4.01	33.977	0.68	26.99	225	4.01	33.98	27.00	109	0.34
248	3.98	34.015	0.53	27.03	250	3.98	34.02	27.03	106	0.37
297	3.89	34.083	0.50	27.09	300	3.88	34.09	27.09	100	0.42
384	3.75	34.156	0.48	27.16	400	3.72	34.17	27.18	93	0.52
492	3.49	34.233	0.46	27.25	500	3.47	34.24	27.25	86	0.61
590	3.32	34.284	0.44	27.31	600	3.30	34.29	27.31	82	0.70
802	2.99	34.362	0.49	27.40	700	3.14	34.33	27.36	78	0.78
984	2.71	34.414	0.52	27.47	800	2.99	34.36	27.40	74	0.85
1090	2.55	34.441	0.58	27.50	1000	2.69	34.42	27.47	68	1.00
1279	2.38	34.486	0.72	27.55	1200	2.43	34.47	27.53	63	1.13
1476	2.19	34.529	0.93	27.60	1500	2.17	34.53	27.61	56	1.31
1500	(2.17)a)	(34.534)a)	-	(27.61)						
86	HMCS OSHAWA; April 5, 1958; 2328 GCT; 53°47'N, 151°56'W; sounding, missing; wind, 180°, 20 kt; weather, overcast; sea, moderate.									
0	(4.03)a)	(32.846)a)	-	(26.09)	0	4.03	32.85	26.09	193	0.00
5	4.05	32.841	7.31	26.09	10	4.06	32.84	26.08	194	0.02
20	4.06	32.835	7.20	26.08	20	4.06	32.83	26.08	194	0.04
30	4.03	32.838	7.27	26.09	30	4.03	32.84	26.09	193	0.06
49	3.97	32.836	7.19	26.09	50	3.97	32.84	26.09	193	0.10
74	3.94	32.840	7.16	26.10	75	3.94	32.84	26.10	193	0.15
98	3.93	32.855	7.03	26.11	100	3.93	32.89	26.14	189	0.19
122	4.03	33.709	2.22	26.78	125	4.04	33.77	26.82	124	0.23
147	4.09	33.853	1.05	26.89	150	4.09	33.86	26.90	118	0.26
171	4.05	33.915	0.85	26.94	175	4.05	33.92	26.95	113	0.29
196	4.03	33.970	0.56	26.99	200	4.02	33.98	26.99	109	0.32
220	3.99	34.011	0.40	27.02	225	3.98	34.02	27.03	106	0.35
245	3.95	34.043	0.38	27.05	250	3.94	34.05	27.06	103	0.37
294	3.86	34.080	0.38	27.09	300	3.85	34.08	27.10	100	0.43
380	3.75	34.148	0.37	27.16	400	3.71	34.16	27.17	94	0.52
486	3.51	34.224	0.44	27.24	500	3.48	34.23	27.25	87	0.62
584	3.35	34.280	0.50	27.30	600	3.32	34.29	27.31	82	0.70
794	2.98	34.364	0.47	27.40	700	3.15	34.33	27.36	77	0.78
974	2.67	34.422	0.53	27.48	800	2.97	34.37	27.40	74	0.86
1079	2.55	34.446	0.54	27.50	1000	2.64	34.43	27.48	67	1.00
1266	2.33	34.497	0.74	27.56	1200	2.41	34.48	27.54	62	1.13
1460	2.15	34.539	0.95	27.61	1500	2.12	34.55	27.62	55	1.31
1500	(2.12)a)	(34.546)a)	-	(27.62)						

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

87

HMCS OSHAWA; April 6, 1958; 1328 GCT; 52°40'N, 150°25'W; sounding, missing; wind, 140°, 20 kt; weather, overcast; sea, moderate.

0	(4.34)a)	(32.807)a)	-	(26.03)	0	4.34	32.81	26.03	198	0.00
5	4.34	32.807	6.90	26.03	10	4.34	32.81	26.03	199	0.02
20	4.34	32.807	7.30	26.03	20	4.34	32.81	26.03	199	0.04
30	4.33	32.807	7.26	26.03	30	4.33	32.81	26.03	199	0.06
49	4.30	32.816	7.25	26.04	50	4.30	32.82	26.04	198	0.10
74	4.23	32.850	7.04	26.08	75	4.22	32.86	26.09	194	0.15
99	4.03	33.424	3.98	26.55	100	4.02	33.44	26.57	148	0.19
123	3.94	33.713	2.40	26.79	125	3.93	33.73	26.81	126	0.23
148	3.87	33.856	1.44	26.91	150	3.87	33.86	26.92	116	0.26
173	3.93	33.902	1.16	26.94	175	3.93	33.91	26.95	113	0.29
197	3.88	33.960	0.73	26.99	200	3.88	33.96	27.00	108	0.31
222	3.87	33.978	0.63	27.01	225	3.87	33.98	27.01	107	0.34
247	3.86	34.013	0.53	27.04	250	3.86	34.02	27.04	105	0.37
296	3.81	34.062	0.49	27.08	300	3.81	34.07	27.09	101	0.42
385	3.67	34.143	0.46	27.16	400	3.64	34.15	27.17	94	0.52
490	3.48	34.211	0.40	27.23	500	3.46	34.22	27.24	88	0.61
589	3.29	34.270	0.41	27.30	600	3.27	34.28	27.30	82	0.70
802	2.90	34.366	0.50	27.41	700	3.08	34.33	27.36	77	0.78
981	2.65	34.420	0.56	27.48	800	2.90	34.37	27.41	73	0.85
1090	2.55	34.440	0.66	27.50	1000	2.63	34.42	27.48	67	0.99
1275	2.38	34.486	0.75	27.55	1200	2.45	34.47	27.53	63	1.12
1471	2.25	34.520	0.92	27.59	1500	2.24	34.52	27.59	58	1.31
1500	(2.24)a)	(34.524)a)	-	(27.59)						

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HMCS OSHAWA; April 6, 1958; 2257 GCT; 51°30'N, 148°57'W; sounding, missing; wind, 270°, 10 kt; weather, cloudy; sea, slight.

0	(5.48)a)	(32.737)a)	-	(25.85)	0	5.48	32.74	25.85	216	0.00
5	5.45	32.738	7.29	25.86	10	5.42	32.74	25.86	215	0.02
20	5.37	32.736	7.32	25.86	20	5.37	32.74	25.86	215	0.04
30	5.33	32.731	7.29	25.86	30	5.33	32.73	25.86	215	0.06
50	5.27	32.730	7.28	25.87	50	5.27	32.73	25.87	214	0.11
75	5.27	32.734	7.24	25.87	75	5.27	32.73	25.87	214	0.16
100	5.09	32.771	7.12	25.92	100	5.09	32.77	25.92	210	0.22
125	4.45	33.185	5.56	26.32	125	4.45	33.19	26.32	172	0.26
150	3.92	33.540	4.05	26.66	150	3.92	33.54	26.66	140	0.30
175	3.81	33.752	2.82	26.84	175	3.81	33.75	26.84	124	0.34
200	3.87	33.843	1.97	26.90	200	3.87	33.84	26.90	118	0.37
225	3.87	33.883	1.68	26.93	225	3.87	33.88	26.93	115	0.40
250	3.85	33.914	1.44	26.96	250	3.85	33.91	26.96	112	0.42
300	3.81	33.997	0.97	27.03	300	3.81	34.00	27.03	106	0.48
374	3.77	34.072	0.76	27.09	400	3.74	34.10	27.12	99	0.58
479	3.61	34.163	0.55	27.18	500	3.57	34.18	27.20	92	0.68
575	3.40	34.230	0.54	27.26	600	3.35	34.25	27.27	85	0.77
781	3.07	34.336	0.52	27.37	700	3.18	34.30	27.33	80	0.85
959	2.81	34.398	0.50	27.44	800	3.04	34.34	27.38	76	0.93
1061	2.67	34.425	0.52	27.48	1000	2.75	34.41	27.46	69	1.08
1246	2.45	34.473	0.58	27.53	1200	2.50	34.46	27.52	64	1.21
1438	2.29	34.514	0.78	27.58	1500	2.25	34.53	27.59	58	1.40
1500	(2.25)a)	(34.525)a)	-	(27.59)						

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
89	HMCS OSHAWA; April 7, 1958; 0852 GCT; 50°19'N, 147°27'W; sounding, missing; wind, 280°, 8 kt; weather, partly cloudy; sea, slight.									
0	(5.82)a)	(32.715)a)	-	(25.79)	0	5.82	32.72	25.79	221	0.00
5	5.83	32.722	7.09	25.80	10	5.83	32.73	25.80	221	0.02
19	5.84	32.728	7.08	25.80	20	5.84	32.73	25.80	221	0.04
28	5.84	32.722	7.12	25.80	30	5.84	32.72	25.80	221	0.07
46	5.83	32.737	7.08	25.81	50	5.83	32.74	25.81	220	0.11
69	5.80	32.748	7.06	25.82	75	5.80	32.75	25.82	219	0.17
93	5.80	32.748	7.08	25.82	100	5.74	32.78	25.86	216	0.22
116	5.52	32.918	6.26	25.99	125	5.23	33.07	26.14	190	0.27
139	4.57	33.385	5.33	26.47	150	4.25	33.50	26.59	147	0.32
162	4.01	33.533	4.58	26.64	175	3.82	33.62	26.73	133	0.35
185	3.73	33.699	3.47	26.80	200	3.68	33.76	26.86	122	0.38
208	3.70	33.781	2.90	26.87	225	3.72	33.82	26.90	118	0.41
231	3.73	33.831	2.39	26.91	250	3.74	33.87	26.94	115	0.44
278	3.71	33.926	1.70	26.98	300	3.71	33.96	27.01	108	0.50
376	3.73	34.000	1.19	27.04	400	3.72	34.03	27.06	104	0.60
473	3.67	34.118	0.75	27.14	500	3.63	34.14	27.16	95	0.70
567	3.49	34.189	0.64	27.21	600	3.43	34.21	27.24	88	0.80
771	3.13	34.318	0.54	27.35	700	3.25	34.28	27.31	82	0.88
946	2.87	34.379	0.44	27.42	800	3.08	34.33	27.37	77	0.97
1048	2.73	34.414	0.62	27.46	1000	2.79	34.40	27.44	71	1.12
1229	2.50	34.459	0.71	27.52	1200	2.54	34.45	27.51	65	1.25
1417	2.28	34.508	0.99	27.58	1500	2.19	34.53	27.60	57	1.44
1500	(2.19)a)	(34.530)a)	-	(27.60)						
90	HMCS OSHAWA; April 7, 1958; 1802 GCT; 49°10'N, 146°00'W; sounding, missing; wind, 220°, 10 kt; weather, partly cloudy; sea, slight.									
0	(5.82)a)	(32.834)a)	-	(25.89)	0	5.82	32.83	25.89	212	0.00
5	5.77	32.829	7.27	25.89	10	5.73	32.83	25.89	212	0.02
20	5.71	32.823	7.24	25.89	20	5.71	32.82	25.89	212	0.04
30	5.75	32.827	7.27	25.89	30	5.75	32.83	25.89	212	0.06
50	5.69	32.820	7.28	25.89	50	5.69	32.82	25.89	212	0.11
75	5.71	32.828	7.21	25.90	75	5.71	32.83	25.90	212	0.16
100	5.65	32.832	7.15	25.91	100	5.65	32.83	25.91	212	0.21
125	5.33	33.597	5.57	26.55	125	5.33	33.60	26.55	151	0.26
150	5.01	33.690	5.20	26.66	150	5.01	33.69	26.66	141	0.30
175	4.64	33.739	4.69	26.74	175	4.64	33.74	26.74	133	0.33
200	4.29	33.767	4.23	26.80	200	4.29	33.77	26.80	128	0.36
225	4.19	33.812	3.70	26.84	225	4.19	33.81	26.84	123	0.40
250	4.07	33.846	3.16	26.88	250	4.07	33.85	26.88	120	0.43
300	3.93	33.915	2.37	26.95	300	3.93	33.92	26.95	114	0.48
385	3.83	34.020	1.56	27.05	400	3.81	34.04	27.06	104	0.59
494	3.67	34.112	0.92	27.14	500	3.66	34.12	27.14	97	0.70
593	3.57	34.194	0.90	27.21	600	3.56	34.20	27.22	91	0.79
805	3.13	34.315	0.60	27.35	700	3.39	34.26	27.28	85	0.88
988	2.83	34.386	0.68	27.43	800	3.14	34.31	27.35	79	0.96
1092	2.69	34.426	0.64	27.48	1000	2.81	34.39	27.44	71	1.12
1284	2.47	34.470	0.71	27.53	1200	2.56	34.46	27.51	65	1.25
1481	2.30	34.510	0.81	27.58	1500	2.29	34.51	27.58	59	1.44
1500	(2.29)a)	(34.514)a)	-	(27.58)						

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

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HMCS OSHAWA; April 8, 1958; 0508 GCT; 49°06'N, 143°20'W; sounding, missing; wind, 220°, 8 kt; weather, overcast; sea, smooth.

0	(6.51)a)	(32.765)a)	-	(25.75)	0	6.51	32.77	25.75	226	0.00
5	6.46	32.763	7.12	25.75	10	6.42	32.76	25.76	225	0.02
20	6.35	32.760	7.15	25.76	20	6.35	32.76	25.76	224	0.04
30	6.31	32.761	7.22	25.77	30	6.31	32.76	25.77	224	0.07
50	6.29	32.756	7.18	25.77	50	6.29	32.76	25.77	224	0.11
74	6.29	32.762	7.13	25.77	75	6.29	32.76	25.77	224	0.17
99	6.30	32.767	7.15	25.78	100	6.30	32.77	25.78	224	0.23
124	6.13	32.954	7.25	25.94	125	6.11	32.97	25.96	207	0.28
149	5.27	33.556	5.64	26.52	150	5.24	33.57	26.54	152	0.32
174	4.83	33.644	5.26	26.64	175	4.81	33.65	26.65	142	0.36
199	4.45	33.711	4.78	26.74	200	4.44	33.71	26.74	133	0.40
224	4.25	33.751	4.17	26.79	225	4.24	33.75	26.79	128	0.43
248	4.05	33.798	3.49	26.85	250	4.04	33.80	26.85	123	0.46
298	3.91	33.866	2.64	26.92	300	3.91	33.87	26.92	117	0.52
361	3.86	33.972	1.75	27.01	400	3.83	34.03	27.05	105	0.63
462	3.78	34.095	1.13	27.11	500	3.74	34.13	27.14	97	0.74
554	3.68	34.158	0.85	27.17	600	3.61	34.19	27.20	92	0.83
753	3.29	34.279	0.60	27.31	700	3.42	34.25	27.27	86	0.92
923	3.00	34.352	0.58	27.39	800	3.21	34.30	27.33	81	1.01
1022	2.81	34.397	0.58	27.44	1000	2.85	34.39	27.43	72	1.16
1200	2.59	34.450	0.59	27.50	1200	2.59	34.45	27.50	66	1.30
1385	2.39	34.493	0.63	27.56	1500	2.28	34.51	27.58	59	1.49
1500	(2.28)a)	(34.514)a)	-	(27.58)						

92

HMCS OSHAWA; April 8, 1958; 1546 GCT; 49°00'N, 140°43'W; sounding, missing; wind, 150°, 10 kt; weather, partly cloudy; sea, slight.

0	(7.40)a)	(32.750)a)	-	(25.62)	0	7.40	32.75	25.62	238	0.00
5	7.43	32.746	7.20	25.61	10	7.45	32.74	25.60	239	0.02
20	7.46	32.736	7.06	25.60	20	7.46	32.74	25.60	240	0.05
30	7.44	32.730	7.03	25.59	30	7.44	32.73	25.59	240	0.07
50	7.35	32.729	7.03	25.61	50	7.35	32.73	25.61	240	0.12
75	6.99	32.748	6.96	25.67	75	6.99	32.75	25.67	234	0.18
100	6.80	32.799	6.93	25.74	100	6.80	32.80	25.74	228	0.24
125	5.97	33.401	6.01	26.32	125	5.97	33.40	26.32	173	0.29
150	5.38	33.570	5.63	26.52	150	5.38	33.57	26.52	154	0.33
170	5.28	33.710	5.39	26.64	175	5.25	33.73	26.66	140	0.37
194	5.13	33.770	4.97	26.71	200	5.07	33.78	26.72	135	0.40
218	4.85	33.804	4.33	26.77	225	4.79	33.82	26.78	130	0.44
242	4.67	33.850	3.81	26.82	250	4.62	33.86	26.84	124	0.47
291	4.41	33.885	2.98	26.88	300	4.37	33.89	26.89	120	0.53
386	4.15	33.993	1.97	26.99	400	4.12	34.01	27.01	110	0.64
490	3.92	34.094	1.20	27.10	500	3.90	34.10	27.11	101	0.75
588	3.67	34.177	0.75	27.19	600	3.64	34.19	27.20	93	0.85
801	3.25	34.292	0.56	27.32	700	3.43	34.25	27.27	86	0.94
980	2.94	34.368	0.55	27.41	800	3.25	34.29	27.32	82	1.02
1089	2.79	34.407	0.53	27.45	1000	2.91	34.38	27.42	74	1.18
1274	2.53	34.455	0.55	27.51	1200	2.63	34.44	27.49	67	1.32
1470	2.35	34.497	-	27.56	1500	2.33	34.50	27.57	60	1.52
1500	(2.33)a)	(34.503)a)	-	(27.57)						

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
93	HMCS OSHAWA; April 9, 1958; 0303 GCT; 48°55'N, 138°06'W; sounding, missing; wind, 140°, 35 kt; weather, overcast; sea, rough.									
0	(7.70)a)	(32.618)a)	-	(25.47)	0	7.70	32.62	25.47	252	0.00
5	7.69	32.610	6.90	25.47	10	7.68	32.60	25.46	253	0.02
20	7.67	32.602	6.94	25.46	20	7.67	32.60	25.46	253	0.05
30	7.67	32.610	6.93	25.47	30	7.67	32.61	25.47	253	0.08
50	7.62	32.627	6.99	25.49	50	7.62	32.63	25.49	251	0.13
75	7.49	32.636	6.82	25.51	75	7.49	32.64	25.51	249	0.19
100	7.04	32.647	6.82	25.58	100	7.04	32.65	25.58	242	0.25
118	6.80	32.819	6.62	25.75	125	6.62	32.96	25.88	214	0.31
141	6.01	33.416	5.98	26.32	150	5.82	33.53	26.44	162	0.36
165	5.65	33 578	5.79	26.49	175	5.49	33.63	26.55	151	0.40
188	5.28	33.677	5.51	26.62	200	5.18	33.72	26.66	141	0.43
212	5.15	33.760	4.91	26.70	225	5.05	33.80	26.74	134	0.47
235	4.95	33.821	4.17	26.77	250	4.84	33.85	26.80	128	0.50
282	4.66	33.872	3.07	26.84	300	4.57	33.89	26.87	122	0.56
377	4.27	33.988	2.22	26.98	400	4.20	34.01	27.00	110	0.68
484	3.99	34.086	1.12	27.08	500	3.95	34.10	27.10	102	0.79
581	3.75	34.154	0.99	27.16	600	3.71	34.17	27.18	95	0.89
789	3.30	34.277	0.66	27.30	700	3.48	34.23	27.25	89	0.98
968	2.99	34.361	0.54	27.40	800	3.28	34.28	27.31	83	1.07
1076	2.83	34.400	0.60	27.44	1000	2.94	34.37	27.41	74	1.22
1258	2.59	34.447	0.94	27.50	1200	2.66	34.43	27.49	68	1.37
1452	2.39	34.502	0.75	27.56	1500	2.35	34.52	27.58	60	1.56
1500	(2.35)a)	(34.516)a)	-	(27.58)						
94	HMCS OSHAWA; April 9, 1958; 1357 GCT; 48°52'N, 135°27'W; sounding, missing; wind, 250°, 10 kt; weather, cloudy; sea, slight.									
0	(7.68)a)	(32.544)a)	-	(25.41)	0	7.68	32.54	25.41	257	0.00
5	7.67	32.542	7.11	25.41	10	7.66	32.54	25.42	257	0.03
20	7.66	32.540	6.92	25.41	20	7.66	32.54	25.41	258	0.05
30	7.68	32.541	6.88	25.41	30	7.68	32.54	25.41	258	0.08
50	(7.57)b)	32.559	6.82	(25.44)	50	7.57	32.56	25.44	255	0.13
74	7.19	(32.595)b)	-	(25.52)	75	7.18	32.60	25.53	248	0.19
99	6.90	32.650	6.76	25.61	100	6.87	32.66	25.62	239	0.25
124	5.96	33.054	6.22	26.04	125	5.93	33.07	26.06	198	0.31
149	5.54	33.309	6.17	26.30	150	5.53	33.32	26.30	174	0.36
174	5.38	33.534	5.59	26.49	175	5.38	33.54	26.50	156	0.40
199	5.48	33.702	5.03	26.61	200	5.48	33.71	26.62	145	0.44
224	5.46	33.830	4.36	26.72	225	5.45	33.83	26.72	136	0.47
248	5.22	33.865	3.74	26.77	250	5.20	33.87	26.78	131	0.50
298	4.78	33.883	3.16	26.84	300	4.77	33.88	26.84	125	0.57
390	4.38	33.964	2.08	26.95	400	4.34	33.97	26.96	114	0.69
500	4.00	34.070	1.01	27.07	500	4.00	34.07	27.07	104	0.80
600	3.77	34.152	0.77	27.16	600	3.77	34.15	27.16	97	0.90
797	3.34	34.274	0.54	27.30	700	3.55	34.22	27.23	90	1.00
978	3.02	34.363	0.47	27.40	800	3.33	34.28	27.30	84	1.08
1082	2.84	34.401	0.45	27.44	1000	2.98	34.37	27.41	75	1.24
1271	2.61	34.452	0.52	27.50	1200	2.68	34.44	27.49	68	1.39
1468	2.40	34.497	0.58	27.56	1500	2.37	34.50	27.57	61	1.58
1500	(2.37)a)	(34.504)a)	-	(27.57)						

a) Value extrapolated by three-point parabolic method.
b) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

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HMCS OSHAWA; April 10, 1958; 0100 GCT; 48°47'N, 132°48'W; sounding, missing; wind, 230°, 8 kt; weather, cloudy; sea, smooth.

0	(8.02)a)	(32.511)a)	-	(25.34)	0	8.02	32.51	25.34	264	0.00
5	7.86	32.516	6.88	25.37	10	7.73	32.52	25.39	260	0.03
20	7.59	32.526	6.69	25.41	20	7.59	32.53	25.41	258	0.05
29	7.58	32.528	6.57	25.42	30	7.58	32.53	25.42	257	0.08
49	7.40	32.539	6.80	25.45	50	7.39	32.54	25.45	254	0.13
74	7.09	32.576	6.23	25.52	75	7.06	32.59	25.53	247	0.19
98	6.16	32.975	5.84	25.96	100	6.10	33.00	25.99	204	0.25
123	5.62	33.238	5.02	26.23	125	5.60	33.26	26.25	179	0.30
147	5.52	33.548	4.12	26.49	150	5.52	33.58	26.51	155	0.34
172	5.60	33.748	3.56	26.64	175	5.60	33.77	26.65	142	0.38
196	5.48	33.869	3.16	26.75	200	5.46	33.88	26.76	132	0.41
220	5.32	33.890	2.70	26.78	225	5.29	33.89	26.79	129	0.45
245	5.14	33.906	2.35	26.81	250	5.09	33.91	26.82	126	0.48
294	4.56	33.922	2.13	26.89	300	4.51	33.93	26.90	119	0.54
396	4.17	34.025	1.20	27.02	400	4.16	34.03	27.02	108	0.65
450	4.15	34.078	0.86	27.06	500	4.08	34.13	27.11	101	0.76
559	3.93	34.189	0.55	27.17	600	3.84	34.22	27.21	92	0.86
762	3.41	34.292	0.55	27.30	700	3.58	34.27	27.27	86	0.95
932	3.07	34.361	0.44	27.39	800	3.33	34.31	27.33	82	1.03
1045	2.92	34.398	0.46	27.43	1000	2.97	34.38	27.42	74	1.19
1211	2.66	34.449	0.44	27.50	1200	2.68	34.45	27.49	67	1.33
1398	2.42	34.490	0.63	27.55	1500	2.31	34.51	27.57	60	1.52
1500	(2.31)a)	(34.505)a)	-	(27.57)						

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HMCS OSHAWA; April 10, 1958; 1325 GCT; 48°42'N, 130°06'W; sounding, missing; wind, 260°, 10 kt; weather, cloudy; sea, slight.

0	(8.43)a)	(32.438)a)	-	(25.22)	0	8.43	32.44	25.22	276	0.00
5	8.46	32.432	6.74	25.21	10	8.48	32.43	25.21	277	0.03
20	8.49	32.422	6.82	25.20	20	8.49	32.42	25.20	278	0.06
30	8.47	32.423	6.83	25.21	30	8.47	32.42	25.21	278	0.08
50	8.22	32.463	6.72	25.27	50	8.22	32.46	25.27	271	0.14
75	7.26	32.889	5.66	25.74	75	7.26	32.89	25.74	227	0.20
100	7.14	33.507	4.07	26.25	100	7.14	33.51	26.25	180	0.25
125	7.24	33.694	3.45	26.38	125	7.24	33.69	26.38	168	0.30
150	7.05	33.830	2.95	26.51	150	7.05	33.83	26.51	155	0.34
175	6.86	33.888	2.69	26.58	175	6.86	33.89	26.58	149	0.38
200	6.76	33.924	2.45	26.63	200	6.76	33.92	26.63	145	0.41
225	6.58	33.948	1.61	26.67	225	6.58	33.95	26.67	141	0.45
250	6.36	33.965	2.03	26.71	250	6.36	33.97	26.71	138	0.48
300	5.88	33.994	1.65	26.79	300	5.88	33.99	26.79	130	0.55
392	5.25	34.058	1.11	26.92	400	5.21	34.06	26.93	118	0.68
493	4.84	34.104	0.84	27.01	500	4.81	34.11	27.01	111	0.79
592	4.47	34.171	0.55	27.10	600	4.44	34.18	27.11	102	0.90
811	3.88	34.314	0.35	27.28	700	4.14	34.24	27.19	95	1.00
986	3.50	34.393	0.37	27.38	800	3.90	34.31	27.27	88	1.09
1101	3.19	34.437	0.45	27.44	1000	3.46	34.40	27.38	78	1.26
1282	2.84	34.474	0.62	27.50	1200	2.98	34.46	27.48	69	1.41
1480	2.50	34.512	0.83	27.56	1500	2.47	34.52	27.57	61	1.61
1500	(2.47)a)	(34.516)a)	-	(27.57)						

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
97	HMCS OSHAWA; April 10, 1958; 2303 GCT; 48°40'N, 127°32'W; sounding, missing; wind, 220°, 10 kt; weather, cloudy; sea, slight.									
0	(9.60)a)	(32.405)a)	-	(25.02)	0	9.60	32.41	25.02	295	0.00
5	9.32	32.404	6.65	25.06	10	9.10	32.40	25.09	288	0.03
20	8.84	32.400	6.46	25.13	20	8.84	32.40	25.13	284	0.06
30	8.82	32.397	5.94	25.13	30	8.82	32.40	25.13	285	0.09
50	8.77	32.396	6.45	25.14	50	8.77	32.40	25.14	284	0.14
75	7.94	32.513	6.38	25.35	75	7.94	32.51	25.35	264	0.21
99	7.58	33.070	5.16	25.84	100	7.57	33.09	25.86	216	0.27
124	7.40	33.470	4.05	26.18	125	7.40	33.48	26.19	185	0.32
149	7.34	33.748	3.33	26.41	150	7.34	33.76	26.41	165	0.37
174	7.32	33.878	2.74	26.51	175	7.31	33.88	26.52	155	0.41
199	7.00	33.930	2.59	26.60	200	6.99	33.93	26.60	148	0.45
224	6.81	33.966	2.22	26.65	225	6.80	33.97	26.65	143	0.48
248	6.53	33.957	2.30	26.68	250	6.51	33.96	26.68	140	0.52
298	6.16	33.979	2.13	26.75	300	6.14	33.98	26.75	134	0.59
386	5.35	34.024	1.44	26.88	400	5.25	34.03	26.90	121	0.72
493	4.85	34.100	0.88	27.00	500	4.82	34.11	27.01	111	0.83
591	4.51	34.185	0.62	27.11	600	4.48	34.19	27.11	102	0.94
804	3.98	34.313	0.47	27.26	700	4.20	34.26	27.20	94	1.04
986	3.50	34.379	0.40	27.36	800	3.99	34.31	27.26	89	1.13
1093	3.27	34.421	0.57	27.42	1000	3.47	34.38	27.37	79	1.30
1280	2.86	34.474	0.57	27.50	1200	3.04	34.45	27.47	70	1.45
1476	2.49	34.507	0.72	27.56	1500	2.45	34.51	27.56	61	1.66
1500	(2.45)a)	(34.509)a)	-	(27.56)						
98	HMCS OSHAWA; April 11, 1958; 0309 GCT; 48°39'N, 126°51'W; sounding, 1100 fm; wind, direction missing, 3 kt; weather, overcast; sea, calm.									
0	(9.33)a)	(32.411)a)	-	(25.06)	0	9.33	32.41	25.06	291	0.00
5	9.26	32.411	6.59	25.07	10	9.20	32.41	25.08	289	0.03
20	9.12	32.411	6.71	25.10	20	9.12	32.41	25.10	288	0.06
30	9.08	32.412	6.61	25.10	30	9.08	32.41	25.10	287	0.09
50	9.06	32.411	6.60	25.11	50	9.06	32.41	25.11	287	0.14
75	8.38	32.554	6.34	25.32	75	8.38	32.55	25.32	267	0.22
100	7.44	33.062	5.49	25.86	100	7.44	33.06	25.86	217	0.28
125	7.20	33.378	4.66	26.14	125	7.20	33.38	26.14	190	0.33
150	7.12	33.647	3.80	26.36	150	7.12	33.65	26.36	170	0.37
175	7.26	33.832	2.98	26.48	175	7.26	33.83	26.48	158	0.41
200	6.79	33.869	2.70	26.58	200	6.79	33.87	26.58	150	0.45
225	6.54	33.904	2.64	26.64	225	6.54	33.90	26.64	144	0.49
250	6.32	33.918	2.62	26.68	250	6.32	33.92	26.68	140	0.52
300	5.84	33.955	2.11	26.77	300	5.84	33.95	26.77	132	0.59
392	5.10	33.984	1.57	26.88	400	5.05	33.99	26.89	122	0.72
490	4.75	34.067	1.00	26.99	500	4.72	34.08	27.00	112	0.84
603	4.40	34.174	0.58	27.11	600	4.41	34.17	27.11	102	0.95
784	3.96	34.297	0.40	27.25	700	4.15	34.25	27.19	95	1.05
890	3.64	34.344	0.35	27.32	800	3.91	34.31	27.26	88	1.14
980	3.42	34.385	0.37	27.38	1000	3.37	34.39	27.39	77	1.31
1077	3.18	34.420	0.40	27.43	1200	2.94	34.46	27.48	69	1.46
1273	2.83	34.476	0.57	27.50						

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	σ_t g/L	δ cl/ton	ΔD dyn m
HMCS OSHAWA; April 11, 1958; 0544 GCT; 48°35'N, 126°21'W; sounding, 575 fm; wind, 160°, 5 kt; weather, partly cloudy; sea, smooth.										99
0	10.90	32.484	6.32	24.86	0	10.90	32.48	24.86	310	0.00
5	(10.66)a)	32.507	6.55	(24.92)	10	10.47	32.52	24.96	301	0.03
20	10.26	32.517	6.43	24.99	20	10.26	32.52	24.99	298	0.06
30	10.27	32.516	5.95	24.99	30	10.27	32.52	24.99	298	0.09
50	10.26	32.592	5.73	25.05	50	10.26	32.59	25.05	293	0.15
75	10.18	32.834	5.34	25.25	75	10.18	32.83	25.25	274	0.22
100	8.47	33.286	4.70	25.88	100	8.47	33.29	25.88	215	0.28
125	8.17	33.452	4.24	26.06	125	8.17	33.45	26.06	198	0.34
150	8.04	33.667	3.26	26.24	150	8.04	33.67	26.24	181	0.38
175	7.68	33.770	3.06	26.38	175	7.68	33.77	26.38	169	0.43
200	7.49	33.876	2.79	26.49	200	7.49	33.88	26.49	158	0.47
225	7.31	33.900	2.53	26.53	225	7.31	33.90	26.53	155	0.51
250	6.96	33.932	2.30	26.60	250	6.96	33.93	26.60	148	0.55
297	6.03	33.932	2.50	26.73	300	5.98	33.93	26.73	136	0.62
379	5.35	33.968	1.90	26.84	400	5.21	33.98	26.86	124	0.75
474	4.80	34.010	1.44	26.94	500	4.71	34.03	26.96	115	0.87
575	4.58	34.131	0.86	27.06	600	4.51	34.16	27.08	105	0.98
758	4.00	34.283	0.44	27.24	700	4.21	34.24	27.19	96	1.08
948	3.43	34.392	0.48	27.38	800	3.87	34.31	27.27	88	1.17
1000	(3.28)b)	(34.413)b)	-	(27.41)	1000	3.28	34.41	27.41	75	1.34
HMCS OSHAWA; April 11, 1958; 0817 GCT; 48°39'N, 126°10'W; sounding, 102 fm; wind, 200°, 8 kt; weather, partly cloudy; sea, smooth.										100
0	(10.58)b)	(32.455)b)	-	(24.89)	0	10.58	32.45	24.89	307	0.00
5	10.44	32.486	6.63	24.94	10	10.33	32.51	24.98	299	0.03
20	10.21	32.543	6.60	25.02	20	10.21	32.54	25.02	295	0.06
30	10.22	32.550	6.50	25.03	30	10.22	32.55	25.03	295	0.09
50	10.18	32.580	5.95	25.06	50	10.18	32.58	25.06	292	0.15
75	10.22	32.729	5.94	25.17	75	10.22	32.73	25.17	282	0.22
100	9.72	33.133	4.84	25.56	100	9.72	33.13	25.56	245	0.29
125	9.01	33.315	4.23	25.82	125	9.01	33.31	25.82	221	0.35
150	8.68	33.388	4.04	25.93	150	8.68	33.39	25.93	211	0.40
175	7.86	33.659	3.18	26.26	175	7.86	33.66	26.26	179	0.45

a) Value interpolated by three-point parabolic method.
b) Value extrapolated by three-point parabolic method.

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m
HMCS OSHAWA; April 24, 1958; 2332 GCT;[a] 48°20'N, 135°10'W; sounding, 2140 fm; wind, 350°, 10 kt; weather, intermittent slight rain; sea, moderate.									1
0	8.40	32.51	25.28	0	8.40	32.51	25.28	270	0.00
10	8.31	32.50	25.29	10	8.31	32.50	25.29	270	0.03
20	8.28	32.50	25.29	20	8.28	32.50	25.29	269	0.05
30	8.24	32.50	25.30	30	8.24	32.50	25.30	269	0.08
50	8.19	32.50	25.30	50	8.19	32.50	25.30	268	0.14
74	7.97	32.51	25.34	75	7.95	32.51	25.35	264	0.20
99	6.99	32.72	25.65	100	6.95	32.73	25.66	235	0.26
124	6.19	33.29	26.20	150	6.12	33.55	26.42	164	0.36
149	6.12	33.54	26.41	200	5.86	33.89	26.71	136	0.44
174	6.09	33.79	26.61	250	5.41	33.92	26.79	130	0.51
198	5.88	33.88	26.71	300	5.05	33.95	26.86	123	0.57
248	5.43	33.92	26.79	400	4.48	34.00	26.96	114	0.69
298	5.06	33.95	26.86	500	4.07	34.09	27.08	104	0.80
346	4.77	33.97	26.91	600	3.90	34.20	27.18	95	0.90
496	4.08	34.09	27.07	700	3.72	34.27	27.26	88	0.99
595	3.91	34.19	27.17	800	3.54	34.32	27.31	83	1.08
794	3.55	34.32	27.31						
993	3.18	34.41	27.42						
HMCS OSHAWA; April 25, 1958; 0212 GCT; 48°20'N, 135°25'W; sounding, 2117 fm; wind, 350°, 12 kt; weather, overcast; sea, moderate.									2
0	8.50	32.50	25.26	0	8.50	32.50	25.26	272	0.00
10	8.40	32.49	25.27	10	8.40	32.49	25.27	272	0.03
20	8.36	32.49	25.27	20	8.36	32.49	25.27	271	0.06
30	8.31	32.49	25.28	30	8.31	32.49	25.28	271	0.08
50	7.80	32.49	25.35	50	7.80	32.49	25.35	264	0.14
75	7.81	(32.61)b)	25.45	75	7.81	32.61	25.45	255	0.20
100	6.71	32.88	25.81	100	6.71	32.88	25.81	221	0.26
125	6.12	33.18	26.12	150	6.02	33.49	26.38	167	0.36
150	6.02	33.49	26.38	200	5.82	33.84	26.68	140	0.44
175	6.10	33.76	26.58	250	5.48	33.92	26.79	130	0.50
199	5.83	33.84	26.68	300	5.07	33.94	26.85	124	0.57
249	5.49	33.92	26.79	400	4.54	34.02	26.98	113	0.69
299	5.08	33.94	26.85	500	4.25	34.14	27.09	102	0.80
347	4.79	33.97	26.91	600	4.02	34.20	27.17	96	0.90
500	4.25	34.14	27.09	700	3.77	34.27	27.25	89	0.99
600	4.02	34.20	27.17	800	3.50	34.33	27.33	82	1.08
800	3.50	34.33	27.33	1000	3.10	34.42	27.43	72	1.23
1000	3.10	34.42	27.43	1200	2.75	34.48	27.51	65	1.37
1159	2.82	34.47	27.50	1500	2.33	34.55	27.60	57	1.56
1500	2.33	34.55	27.60						

a) Although not indicated in the tabulation, two casts were made at each station. The time reported is the time of the messenger release of the first cast.

b) Value interpolated graphically by three-point parabolic method.

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m
3	HMCS OSHAWA; April 25, 1958; 0426 GCT; 48°20'N, 135°40'W; sounding, 2090 fm; wind, 350°, 15 kt; weather, cloudy; sea, moderate.								
0	8.20	32.49	25.30	0	8.20	32.49	25.30	268	0.00
10	8.37	32.48	25.27	10	8.37	32.48	25.27	271	0.03
20	8.16	32.50	25.31	20	8.16	32.50	25.31	267	0.05
30	8.16	32.50	25.31	30	8.16	32.50	25.31	268	0.08
50	7.94	32.54	25.37	50	7.94	32.54	25.37	262	0.13
75	7.69	32.55	25.42	75	7.69	32.55	25.42	258	0.20
100	6.67	32.88	25.82	100	6.67	32.88	25.82	220	0.26
125	6.20	33.38	26.27	150	6.16	33.59	26.44	161	0.36
150	6.16	33.59	26.44	200	5.86	33.81	26.65	142	0.43
175	6.20	33.72	26.54	250	5.41	33.90	26.77	131	0.50
200	5.86	33.81	26.65	300	4.99	33.94	26.85	124	0.57
250	5.41	33.90	26.77	400	4.19	33.99	26.98	112	0.68
300	4.99	33.94	26.85	500	3.99	34.11	27.10	101	0.79
347	4.54	33.95	26.92	600	3.86	34.19	27.18	95	0.89
500	3.99	34.11	27.10	700	3.70	34.26	27.25	88	0.98
600	3.86	34.19	27.18	800	3.51	34.33	27.32	82	1.07
800	3.51	34.33	27.32	1000	3.18	34.41	27.42	74	1.23
1000	3.18	34.41	27.42	1200	2.76	34.48	27.51	66	1.37
1156	2.84	34.46	27.49	1500	2.34	34.55	27.60	57	1.56
1500	2.34	34.55	27.60						
4	HMCS OSHAWA; April 25, 1958; 0705 GCT; 48°20'N, 135°55'W; sounding, 2126 fm; wind, 350°, 8 kt; weather, overcast; sea, slight.								
0	8.00	32.56	25.38	0	8.00	32.56	25.38	260	0.00
10	8.03	32.53	25.35	10	8.03	32.53	25.35	263	0.03
20	8.02	32.53	25.35	20	8.02	32.53	25.35	263	0.05
29	7.98	32.53	25.36	30	7.97	32.53	25.36	263	0.08
50	7.69	32.53	25.41	50	7.69	32.53	25.41	259	0.13
69	7.50	32.58	25.47	75	7.36	32.64	25.54	247	0.20
99	6.45	33.08	26.00	100	6.43	33.10	26.02	201	0.25
124	6.10	33.43	26.32	150	6.12	33.70	26.53	153	0.34
148	6.12	33.68	26.52	200	6.01	33.90	26.70	138	0.41
173	6.17	33.83	26.63	250	5.58	33.94	26.79	130	0.48
197	6.03	33.89	26.69	300	5.09	33.97	26.87	122	0.54
246	5.62	33.94	26.78	400	4.54	34.01	26.96	114	0.66
295	5.13	33.97	26.87	500	4.16	34.11	27.09	103	0.77
352	4.78	33.98	26.91	600	3.76	34.18	27.18	95	0.87
488	4.21	34.10	27.07	700	3.55	34.25	27.26	88	0.97
584	3.81	34.17	27.16	800	3.48	34.32	27.32	83	1.05
776	3.52	34.31	27.30	1000	3.11	34.41	27.42	73	1.21
968	3.16	34.39	27.41	1200	2.82	34.47	27.50	66	1.35
1124	2.93	34.45	27.47						
1456	2.44	34.53	27.58						

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m

5

HMCS OSHAWA; April 25, 1958; 0847 GCT; 48°20'N, 136°11'W; sounding, missing; wind, 350°, 8 kt; weather, cloudy; sea, moderate.

0	7.80	32.55	25.40	0	7.80	32.55	25.40	258	0.00
10	7.91	32.55	25.39	10	7.91	32.55	25.39	260	0.03
20	7.89	32.55	25.39	20	7.89	32.55	25.39	260	0.05
30	7.89	32.55	25.39	30	7.89	32.55	25.39	260	0.08
50	7.83	32.55	25.40	50	7.83	32.55	25.40	259	0.13
75	7.59	32.56	25.44	75	7.59	32.56	25.44	256	0.20
100	6.46	32.96	25.91	100	6.46	32.96	25.91	212	0.25
124	6.06	33.39	26.29	150	6.21	33.65	26.48	158	0.35
149	6.21	33.64	26.48	200	6.12	33.89	26.68	140	0.42
174	6.18	33.83	26.63	250	5.54	33.96	26.81	128	0.49
199	6.13	33.89	26.68	300	5.26	33.97	26.85	124	0.55
249	5.55	33.95	26.80	400	4.80	34.04	26.96	115	0.67
299	5.27	33.97	26.85	500	4.29	34.12	27.08	104	0.78
351	5.04	34.00	26.90	600	4.05	34.19	27.16	97	0.88
487	4.33	34.11	27.07	700	3.82	34.25	27.23	90	0.98
585	4.09	34.18	27.15	800	3.58	34.31	27.30	85	1.07
780	3.63	34.30	27.29	1000	3.15	34.40	27.41	75	1.23
975	3.20	34.39	27.40	1200	2.83	34.47	27.50	67	1.37
1132	2.94	34.44	27.47						
1474	2.42	34.53	27.59						

6

HMCS OSHAWA; April 25, 1958; 1115 GCT; 48°20'N, 136°25'W; sounding, 1820 fm; wind, 350°, 8 kt; weather, overcast; sea, moderate.

0	7.50	32.57	25.46	0	7.50	32.57	25.46	253	0.00
9	7.95	32.56	25.39	10	7.97	32.56	25.39	260	0.03
19	7.95	32.56	25.39	20	7.95	32.56	25.39	260	0.05
28	7.92	32.56	25.39	30	7.91	32.56	25.40	259	0.08
47	7.89	32.56	25.40	50	7.87	32.56	25.40	259	0.13
71	7.69	32.56	25.43	75	7.62	32.58	25.45	255	0.20
95	7.07	32.67	25.60	100	6.90	32.73	25.67	234	0.26
118	6.20	33.07	26.02	150	6.22	33.64	26.47	159	0.36
142	6.18	33.53	26.39	200	6.19	33.90	26.68	139	0.43
166	6.36	33.78	26.56	250	5.79	33.94	26.77	132	0.50
189	6.26	33.87	26.65	300	5.45	33.97	26.83	126	0.56
236	5.90	33.93	26.74	400	5.03	34.01	26.91	119	0.69
284	5.52	33.97	26.82	500	4.51	34.10	27.04	108	0.80
316	5.41	33.97	26.83	600	4.18	34.17	27.13	100	0.91
465	4.64	34.07	27.00	700	3.87	34.24	27.22	92	1.00
558	4.32	34.14	27.09	800	3.58	34.29	27.29	86	1.09
742	3.75	34.26	27.25	1000	3.10	34.38	27.40	75	1.26
934	3.20	34.35	27.37	1200	2.87	34.47	27.50	67	1.40
1080	3.03	34.42	27.44						
1425	2.50	34.52	27.57						

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m
7	HMCS OSHAWA; April 25, 1958; 1348 GCT; 48°20'N, 136°40'W; sounding, 2120 fm; wind, 330°, 10 kt; weather, overcast; sea, slight.								
0	7.90	32.56	25.40	0	7.90	32.56	25.40	259	0.00
10	7.94	32.54	25.38	10	7.94	32.54	25.38	261	0.03
20	7.93	32.54	25.38	20	7.93	32.54	25.38	261	0.05
30	7.93	32.54	25.38	30	7.93	32.54	25.38	261	0.08
50	7.93	32.55	25.38	50	7.93	32.55	25.38	261	0.13
75	7.68	32.55	25.42	75	7.68	32.55	25.42	258	0.20
100	7.28	32.64	25.55	100	7.28	32.64	25.55	246	0.26
125	6.12	33.13	26.09	150	6.18	33.56	26.41	164	0.36
150	6.18	33.56	26.41	200	6.20	33.89	26.67	141	0.44
175	6.37	33.79	26.57	250	5.78	33.94	26.76	132	0.51
200	6.20	33.89	26.67	300	5.44	33.97	26.83	126	0.57
250	5.78	33.94	26.76	400	4.81	34.04	26.96	115	0.70
300	5.44	33.97	26.83	500	4.45	34.11	27.05	107	0.81
339	5.16	34.00	26.88	600	4.16	34.18	27.14	99	0.91
497	4.46	34.11	27.05	700	3.85	34.24	27.22	92	1.01
596	4.17	34.17	27.13	800	3.52	34.28	27.29	86	1.10
795	3.53	34.28	27.28	1000	3.22	34.39	27.40	76	1.26
994	3.23	34.39	27.40	1200	2.83	34.47	27.50	67	1.41
1151	2.92	34.45	27.48						
1492	2.37	34.54	27.59						
8	HMCS OSHAWA; April 25, 1958; 1605 GCT; 48°20'N, 136°55'W; sounding, missing; wind, 340°, 10 kt; weather, overcast; sea, slight.								
0	7.90	32.54	25.38	0	7.90	32.54	25.38	260	0.00
10	7.93	32.54	25.37	10	7.93	32.54	25.37	261	0.03
20	7.92	32.53	25.37	20	7.92	32.53	25.37	262	0.05
30	7.92	32.53	25.37	30	7.92	32.53	25.37	262	0.08
50	7.75	32.53	25.40	50	7.75	32.53	25.40	260	0.13
75	7.55	32.58	25.46	75	7.55	32.58	25.46	254	0.20
100	6.49	32.97	25.91	100	6.49	32.97	25.91	211	0.25
125	6.22	33.48	26.35	150	6.35	33.73	26.53	153	0.35
150	6.35	33.73	26.53	200	6.17	33.89	26.67	140	0.42
175	6.29	33.85	26.63	250	5.82	33.95	26.76	132	0.49
200	6.17	33.89	26.67	300	5.46	33.98	26.83	126	0.55
250	5.82	33.95	26.76	400	4.70	34.07	26.99	112	0.67
300	5.46	33.98	26.83	500	4.32	34.12	27.08	104	0.78
336	5.14	34.02	26.90	600	3.99	34.18	27.16	97	0.88
495	4.34	34.12	27.07	700	3.71	34.24	27.24	90	0.98
594	4.01	34.18	27.16	800	3.48	34.30	27.30	84	1.07
793	3.49	34.30	27.30	1000	3.22	34.41	27.41	75	1.23
992	3.23	34.40	27.41	1200	2.79	34.47	27.50	66	1.37
1148	2.89	34.45	27.48						
1491	2.42	34.53	27.59						

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m
HMCS OSHAWA; April 25, 1958; 1835 GCT; 48°18'N, 137°07'W; sounding, 2128 fm; wind, 020°, 8 kt; weather, cloudy; sea, slight.									9
0	7.80	32.54	25.39	0	7.80	32.54	25.39	259	0.00
10	8.00	32.54	25.37	10	8.00	32.54	25.37	262	0.03
20	7.97	32.54	25.37	20	7.97	32.54	25.37	262	0.05
30	7.96	32.54	25.37	30	7.96	32.54	25.37	262	0.08
50	7.87	32.54	25.39	50	7.87	32.54	25.39	261	0.13
74	7.70	32.54	25.41	75	7.68	32.54	25.41	258	0.20
99	6.95	32.77	25.70	100	6.92	32.79	25.71	230	0.26
124	6.29	33.28	26.18	150	6.19	33.59	26.44	162	0.36
149	6.19	33.58	26.43	200	6.14	33.88	26.67	140	0.43
173	6.30	33.79	26.58	250	5.66	33.94	26.78	131	0.50
198	6.15	33.88	26.67	300	5.24	33.97	26.85	124	0.57
247	5.69	33.94	26.77	400	4.63	34.01	26.95	115	0.69
297	5.26	33.97	26.85	500	4.28	34.10	27.07	105	0.80
400	4.63	34.01	26.95	600	3.86	34.17	27.16	96	0.90
500	4.28	34.10	27.07	700	3.61	34.24	27.24	89	0.99
601	3.86	34.17	27.16	800	3.53	34.32	27.31	83	1.08
802	3.53	34.32	27.31	1000	3.17	34.41	27.42	74	1.24
1042	3.09	34.42	27.44	1200	2.81	34.48	27.51	66	1.38
1406	2.46	34.52	27.57	1500	2.34	34.54	27.60	58	1.57
1864	2.00	34.59	27.67	2000	1.92	34.61	27.69	50	1.84
2212	1.83	34.64	27.71						
HMCS OSHAWA; April 26, 1958; 1908 GCT; 48°18'N, 135°16'W; sounding, missing; wind, 020°, 8 kt; weather, overcast; sea, slight.									10
0	8.40	32.51	25.28	0	8.40	32.51	25.28	270	0.00
10	8.33	32.50	25.28	10	8.33	32.50	25.28	270	0.03
20	8.30	32.49	25.28	20	8.30	32.49	25.28	270	0.05
30	8.27	32.49	25.29	30	8.27	32.49	25.29	270	0.08
50	8.20	32.49	25.30	50	8.20	32.49	25.30	269	0.14
75	8.05	32.50	25.33	75	8.05	32.50	25.33	267	0.20
100	6.59	32.98	25.90	100	6.59	32.98	25.90	212	0.26
125	6.15	33.33	26.24	150	6.15	33.61	26.46	160	0.36
150	6.15	33.61	26.46	200	5.91	33.88	26.70	138	0.43
175	6.10	33.77	26.59	250	5.42	33.92	26.79	129	0.50
200	5.91	33.88	26.70	300	5.00	33.96	26.87	122	0.56
250	5.42	33.92	26.79	400	4.38	34.02	26.99	111	0.68
300	(5.00)a)	33.96	26.87	500	4.02	34.10	27.09	102	0.79
377	4.50	34.01	26.97	600	3.91	34.19	27.18	95	0.89
473	4.09	34.08	27.06	700	3.79	34.27	27.25	89	0.98
568	3.95	34.17	27.15	800	3.66	34.33	27.31	84	1.07
761	3.73	34.30	27.28	1000	3.16	34.41	27.42	74	1.23
994	3.17	34.41	27.42	1200	2.77	34.47	27.51	66	1.37
1336	2.55	34.51	27.55	1500	2.33	34.54	27.60	58	1.56
1780	2.05	34.59	27.66	2000	1.91	34.62	27.70	49	1.83
2116	1.86	34.63	27.71						

a) Value interpolated graphically by three-point parabolic method.

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m

1

HMCS OSHAWA; May 17, 1958; 0252 GCT;[a] 48°05'N, 126°24'W; wind, 330°, 15 kt; weather, partly cloudy; sea, rough.

0	(11.56)b)	(32.300)b)	(24.60)	0	11.56	32.30	24.60	335	0.00
5	11.66	32.313	24.59	10	11.67	32.33	24.60	335	0.03
24	11.22	32.392	24.73	20	11.42	32.37	24.68	328	0.07
47	8.96	32.549	25.23	30	10.81	32.43	24.83	314	0.10
71	7.96	32.532	25.37	50	8.76	32.56	25.27	272	0.16
94	7.70	33.218	25.94	75	7.87	32.60	25.43	256	0.22
118	7.48	33.508	26.20	100	7.64	33.33	26.04	200	0.28
142	7.61	33.746	26.37	125	7.48	33.58	26.26	179	0.33
165	7.31	33.884	26.52	150	7.55	33.80	26.42	164	0.37
189	7.06	33.910	26.57	175	7.20	33.91	26.55	152	0.41
212	6.83	33.958	26.64	200	6.95	33.93	26.60	147	0.45
236	6.53	34.031	26.74	250	6.35	34.05	26.78	131	0.52
283	5.89	34.026	26.82						

2

HMCS OSHAWA; May 17, 1958; 1424 GCT; 48°10'N, 126°32'W; wind, 030°, 5 kt; weather, partly cloudy; sea, moderate.

0	(11.48)b)	(31.761)b)	(24.19)	0	11.48	31.76	24.19	374	0.00
5	11.67	31.678	24.10	10	11.75	31.63	24.04	388	0.04
25	11.38	31.677	24.15	20	11.61	31.63	24.07	386	0.08
50	8.68	32.420	25.17	30	11.05	31.76	24.27	367	0.12
75	8.32	32.435	25.24	50	8.68	32.42	25.17	281	0.18
100	7.34	32.661	25.55	75	8.32	32.44	25.24	275	0.25
124	6.65	33.545	26.34	100	7.34	32.66	25.55	245	0.32
149	6.70	33.720	26.47	125	6.64	33.57	26.36	169	0.37
174	6.70	33.839	26.57	150	6.70	33.73	26.48	158	0.41
199	6.31	33.882	26.65	175	6.69	33.84	26.57	150	0.45
224	6.08	33.910	26.70	200	6.30	33.88	26.65	142	0.48
249	5.90	33.917	26.73	250	5.89	33.92	26.73	135	0.55
297	5.68	33.961	26.79	300	5.67	33.97	26.80	130	0.62
300	(5.67)b)	(33.965)b)	(26.80)						

3

HMCS OSHAWA; May 18, 1958; 0225 GCT; 48°10'N, 126°32.5'W; wind, 010°, 5 kt; weather, partly cloudy; sea, slight.

0	(13.56)b)	(31.745)b)	(23.79)	0	13.56	31.75	23.79	412	0.00
5	12.84	31.681	23.88	10	12.18	31.64	23.97	395	0.04
25	(10.51)c)	31.677	(24.30)	20	11.01	31.64	24.18	375	0.08
50	8.79	32.240	25.01	30	10.06	31.74	24.42	352	0.12
75	8.40	32.435	25.23	50	8.79	32.24	25.01	296	0.18
100	7.86	32.478	25.34	75	8.40	32.44	25.23	276	0.25
125	(7.27)c)	33.162	(25.96)	100	7.86	32.48	25.34	266	0.32
150	6.62	33.422	26.25	125	7.27	33.16	25.96	207	0.38
175	6.75	33.627	26.39	150	6.62	33.42	26.25	180	0.43
200	6.65	33.708	26.47	175	6.75	33.63	26.39	167	0.47
225	6.53	33.812	26.57	200	6.65	33.71	26.47	160	0.51
250	6.30	33.880	26.65	250	6.30	33.88	26.65	143	0.59
300	5.90	33.921	26.73	300	5.90	33.92	26.73	136	0.66
400	5.29	34.182	27.02	400	5.29	34.18	27.02	110	0.78
500	4.69	34.120	27.03	500	4.69	34.12	27.03	108	0.90
601	4.31	34.202	27.14	600	4.31	34.20	27.14	99	1.00
803	3.85	34.308	27.27	700	4.03	34.26	27.22	92	1.10
1004	3.39	34.401	27.39	800	3.85	34.31	27.27	88	1.19
				1000	3.40	34.40	27.39	77	1.35

a) Although not indicated in the tabulation, two casts were made at each station. The time reported is the time of the messenger release of the first cast.

b) Value extrapolated graphically by three-point parabolic method.

c) Value interpolated graphically by three-point parabolic method.

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m
4	HMCS OSHAWA; May 18, 1958; 1425 GCT; 48°13'N, 126°35.5'W; wind, 090°, 5 kt; weather, cloudy; sea, slight.								
0	(12.19)a)	(31.696)a)	(24.01)	0	12.19	31.70	24.01	390	0.00
5	12.24	31.707	24.01	10	12.21	31.73	24.04	389	0.04
25	11.66	31.893	24.26	20	11.92	31.83	24.16	377	0.08
50	9.14	32.448	25.12	30	11.32	31.98	24.39	355	0.11
75	8.72	32.533	25.25	50	9.14	32.45	25.12	286	0.18
100	6.81	33.065	25.94	75	8.72	32.53	25.25	274	0.25
125	6.59	33.408	26.24	100	6.81	33.06	25.94	208	0.31
150	6.80	33.710	26.45	125	6.59	33.41	26.24	180	0.36
175	6.74	33.844	26.57	150	6.80	33.71	26.45	161	0.40
200	6.50	33.889	26.63	175	6.74	33.84	26.57	150	0.44
225	6.31	33.924	26.69	200	6.50	33.89	26.63	144	0.48
250	6.19	33.962	26.73	250	6.19	33.96	26.73	136	0.55
300	5.83	(34.047)a)	(26.84)	300	5.83	34.05	26.84	125	0.61
5	HMCS OSHAWA; May 19, 1958; 0223 GCT; 48°14'N, 126°37.5'W; wind, 190°, 10 kt; weather, overcast; sea, slight.								
0	(12.39)a)	(31.744)a)	(24.01)	0	12.39	31.74	24.01	391	0.00
5	12.25	31.778	24.07	10	12.06	31.82	24.13	380	0.04
25	11.25	31.992	24.41	20	11.56	31.93	24.31	363	0.08
50	9.04	32.436	25.13	30	10.89	32.07	24.53	342	0.11
75	8.36	32.441	25.24	50	9.04	32.44	25.13	285	0.17
100	6.85	33.086	25.95	75	8.36	32.44	25.24	275	0.24
125	6.79	33.470	26.26	100	6.85	33.09	25.95	207	0.31
150	6.95	33.762	26.47	125	6.79	33.47	26.26	178	0.35
175	6.97	33.881	26.56	150	6.95	33.76	26.47	159	0.40
200	6.68	33.916	26.63	175	6.97	33.88	26.56	151	0.44
225	6.53	33.969	26.69	200	6.68	33.92	26.63	145	0.47
250	6.25	33.990	26.74	250	6.25	33.99	26.74	134	0.54
300	5.85	34.015	26.82	300	5.85	34.02	26.82	128	0.61
400	5.23	34.105	26.96	400	5.23	34.11	26.96	115	0.73
500	4.63	34.142	27.06	500	4.63	34.14	27.06	106	0.84
6	HMCS OSHAWA; May 19, 1958; 1426 GCT; 48°12.5'N, 126°31.5'W; wind, 150°, 15 kt; weather, cloudy; sea, moderate.								
0	(12.84)a)	(31.398)a)	(23.66)	0	12.84	31.40	23.66	424	0.00
5	12.12	31.673	24.01	10	11.46	31.91	24.31	362	0.04
24	9.96	32.367	24.93	20	10.34	32.27	24.79	317	0.07
49	8.51	32.430	25.20	30	9.47	32.47	25.09	289	0.10
73	8.09	32.494	25.32	50	8.47	32.43	25.21	277	0.16
98	6.99	33.199	26.02	75	8.03	32.53	25.35	264	0.23
122	6.68	33.448	26.26	100	6.94	33.24	26.06	197	0.29
147	6.71	33.692	26.45	125	6.66	33.48	26.29	176	0.33
171	6.71	33.818	26.55	150	6.71	33.71	26.47	159	0.38
195	6.34	33.867	26.64	175	6.67	33.83	26.56	150	0.42
220	6.06	33.898	26.70	200	6.28	33.87	26.65	142	0.45
244	5.87	(33.925)b)	(26.74)	250	5.83	33.93	26.75	133	0.52
293	5.71	33.973	26.80	300	5.71	33.98	26.80	129	0.59
300	(5.71)a)	(33.979)a)	(26.80)						

a) Value extrapolated graphically by three-point parabolic method.
b) Value interpolated graphically by three-point parabolic method.

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m

7

HMCS OSHAWA; May 20, 1958; 0225 GCT; 48°11'N, 126°33'W; wind, 150°, 10 kt; weather, cloudy; sea, moderate.

0	(12.95)a)	(31.564)a)	(23.77)	0	12.95	31.56	23.77	414	0.00
5	12.46	31.740	24.00	10	11.99	31.90	24.21	372	0.04
25	10.68	32.246	24.71	20	11.10	32.15	24.56	339	0.08
50	8.87	32.432	25.15	30	10.28	32.32	24.84	313	0.11
75	7.91	32.768	25.56	50	8.87	32.43	25.15	283	0.17
100	7.45	33.268	26.02	75	7.91	32.77	25.56	245	0.23
125	6.86	33.442	26.23	100	7.45	33.27	26.02	202	0.29
150	6.66	33.651	26.42	125	6.86	33.44	26.23	181	0.34
175	6.56	33.817	26.57	150	6.66	33.65	26.42	163	0.38
200	6.35	33.871	26.64	175	6.56	33.82	26.57	150	0.42
225	6.11	33.895	26.69	200	6.35	33.87	26.64	144	0.46
251	5.89	33.920	26.74	250	5.90	33.92	26.73	135	0.53
302	5.65	33.981	26.81	300	5.65	33.98	26.81	128	0.60
400	5.23	34.083	26.94	400	5.23	34.08	26.94	117	0.72
501	4.73	34.140	27.05	500	4.74	34.14	27.05	108	0.83
602	4.31	34.202	27.14	600	4.32	34.20	27.14	99	0.94
804	3.84	34.315	27.28	700	4.02	34.26	27.22	92	1.03
1007	3.39	34.405	27.40	800	3.84	34.31	27.28	87	1.12
				1000	3.41	34.40	27.39	77	1.29

8

HMCS OSHAWA; May 20, 1958; 1425 GCT; 48°11.5'N, 126°32.5'W; wind, 320°, 5 kt; weather, cloudy; sea, missing.

0	(12.97)a)	(31.540)a)	(23.75)	0	12.97	31.54	23.75	416	0.00
5	12.40	31.718	23.99	10	11.87	31.88	24.21	372	0.04
25	10.47	32.234	24.74	20	10.90	32.13	24.59	336	0.08
50	8.82	32.436	25.16	30	10.07	32.31	24.87	310	0.11
75	8.22	32.550	25.34	50	8.82	32.44	25.16	282	0.17
100	7.21	33.278	26.06	75	8.22	32.55	25.34	265	0.24
125	6.91	33.539	26.30	100	7.21	33.28	26.06	198	0.29
150	6.63	33.709	26.47	125	6.91	33.54	26.30	175	0.34
175	6.52	33.822	26.58	150	6.63	33.71	26.47	159	0.38
200	6.35	33.876	26.64	175	6.52	33.82	26.58	149	0.42
225	6.14	33.890	26.68	200	6.35	33.88	26.64	143	0.46
250	5.92	33.913	26.73	250	5.92	33.91	26.73	136	0.53
300	5.61	33.955	26.80	300	5.61	33.95	26.80	130	0.60

9

HMCS OSHAWA; May 21, 1958; 0225 GCT; 48°11'N, 126°32.5'W; wind, 340°, 20 kt; weather, partly cloudy; sea, moderate.

0	(13.27)a)	(31.487)a)	(23.64)	0	13.27	31.49	23.64	426	0.00
5	12.60	31.713	23.95	10	11.98	31.91	24.22	371	0.04
25	10.41	32.323	24.82	20	10.88	32.21	24.65	330	0.08
50	8.82	32.428	25.16	30	9.99	32.40	24.95	302	0.11
74	8.06	32.563	25.38	50	8.82	32.43	25.16	283	0.17
99	7.07	33.226	26.03	75	8.02	32.58	25.39	260	0.23
124	6.80	33.517	26.30	100	7.05	33.24	26.05	198	0.29
149	6.79	33.741	26.48	125	6.79	33.53	26.31	174	0.34
173	6.64	33.878	26.61	150	6.79	33.75	26.48	158	0.38
198	6.35	33.893	26.66	175	6.62	33.88	26.61	146	0.42
223	6.01	33.910	26.71	200	6.32	33.89	26.66	142	0.46
247	5.83	33.933	26.75	250	5.81	33.94	26.76	133	0.52
297	5.47	33.960	26.82	300	5.45	33.96	26.82	127	0.59
300	(5.45)a)	(33.961)a)	(26.82)						

a) Value extrapolated graphically by three-point parabolic method.

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m
10	HMCS OSHAWA; May 21, 1958; 1431 GCT; 48°10.5'N, 126°32'W; wind, 310°, 20 kt; weather, partly cloudy; sea, moderate.								
0	(12.71)a)	(31.440)a)	(23.72)	0	12.71	31.44	23.72	419	0.00
5	12.50	31.642	23.91	10	12.26	31.82	24.10	383	0.04
25	11.33	32.228	24.58	20	11.67	32.12	24.43	351	0.08
50	9.12	32.458	25.13	30	10.95	32.32	24.72	324	0.11
75	8.33	32.495	25.28	50	9.12	32.46	25.13	285	0.17
100	6.89	33.140	25.99	75	8.33	32.50	25.28	271	0.24
125	6.92	33.518	26.28	100	6.89	33.14	25.99	204	0.30
150	6.68	33.744	26.49	125	6.92	33.52	26.28	176	0.35
175	6.49	33.826	26.58	150	6.68	33.74	26.49	157	0.39
200	6.40	33.904	26.66	175	6.49	33.83	26.58	148	0.43
225	6.01	33.902	26.71	200	6.40	33.90	26.66	142	0.47
250	5.86	33.922	26.74	250	5.86	33.92	26.74	134	0.54
300	5.53	33.954	26.81	300	5.53	33.95	26.81	129	0.60
11	HMCS OSHAWA; May 22, 1958; 0242 GCT; 48°10'N, 126°31.5'W; wind, 330°, 20 kt; weather, partly cloudy; sea, moderate.								
0	(12.94)a)	(31.420)a)	(23.66)	0	12.94	31.42	23.66	425	0.00
5	12.71	31.632	23.87	10	12.44	31.82	24.06	386	0.04
25	11.46	32.246	24.57	20	11.82	32.13	24.42	353	0.08
50	9.20	32.491	25.15	30	11.07	32.34	24.72	324	0.11
75	8.08	32.611	25.41	50	9.20	32.49	25.15	284	0.17
100	6.86	33.218	26.06	75	8.08	32.61	25.41	259	0.24
125	6.89	33.538	26.30	100	6.86	33.22	26.06	198	0.30
150	6.87	33.754	26.48	125	6.89	33.54	26.30	174	0.34
175	6.66	33.871	26.60	150	6.87	33.75	26.48	158	0.39
200	6.40	33.908	26.66	175	6.66	33.87	26.60	147	0.43
225	6.22	33.924	26.70	200	6.40	33.91	26.66	142	0.46
250	5.86	33.927	26.74	250	5.86	33.93	26.74	134	0.53
300	5.46	33.966	26.82	300	5.46	33.97	26.82	127	0.60
390	5.14	34.075	26.95	400	5.10	34.08	26.96	115	0.72
489	4.74	34.131	27.04	500	4.70	34.14	27.05	107	0.83
589	4.37	34.187	27.12	600	4.33	34.19	27.13	100	0.94
688	4.09	34.246	27.20	700	4.06	34.25	27.21	93	1.03
887	3.63	34.357	27.33	800	3.81	34.31	27.28	87	1.12
900	(3.60)a)	(34.364)a)	(27.34)						
12	HMCS OSHAWA; May 22, 1958; 1426 GCT; 48°09'N, 126°30.5'W; wind, 330°, 5 kt; weather, partly cloudy; sea, slight.								
0	(12.66)a)	(31.460)a)	(23.74)	0	12.66	31.46	23.74	416	0.00
5	12.55	31.648	23.91	10	12.39	31.82	24.07	385	0.04
25	11.57	32.208	24.52	20	11.90	32.10	24.38	356	0.08
50	9.13	32.473	25.14	30	11.19	32.30	24.66	329	0.11
75	8.30	32.589	25.36	50	9.13	32.47	25.14	284	0.17
100	6.75	33.292	26.13	75	8.30	32.59	25.36	264	0.24
125	6.89	33.565	26.33	100	6.75	33.29	26.13	191	0.30
150	7.04	33.803	26.49	125	6.89	33.56	26.33	172	0.34
175	6.74	33.854	26.57	150	7.04	33.80	26.49	157	0.39
200	6.57	33.896	26.63	175	6.74	33.85	26.57	150	0.42
225	6.36	33.926	26.68	200	6.57	33.90	26.63	145	0.46
250	6.12	33.931	26.72	250	6.12	33.93	26.72	137	0.53
300	5.65	33.962	26.80	300	5.65	33.96	26.80	130	0.60

a) Value extrapolated graphically by three-point parabolic method.

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m

13

HMCS OSHAWA; May 23, 1958; 0220 GCT; 48°10.5'N, 126°33'W; wind, 320°, 12 kt; weather, partly cloudy; sea, slight.

0	(14.41)a)	(31.435)a)	(23.38)	0	14.41	31.44	23.38	452	0.00
5	13.56	31.656	23.72	10	12.78	31.85	24.02	390	0.04
25	10.84	32.276	24.71	20	11.42	32.16	24.51	343	0.08
50	8.95	32.460	25.16	30	10.33	32.37	24.86	310	0.11
75	7.95	32.605	25.42	50	8.95	32.46	25.16	282	0.17
100	6.88	33.148	26.00	75	7.95	32.61	25.42	257	0.24
125	6.83	33.389	26.20	100	6.88	33.15	26.00	203	0.30
150	6.86	33.781	26.50	125	6.83	33.39	26.20	185	0.35
175	6.69	33.850	26.58	150	6.86	33.78	26.50	156	0.39
200	6.25	33.884	26.66	175	6.69	33.85	26.58	149	0.43
225	6.03	33.895	26.70	200	6.25	33.88	26.66	142	0.46
250	5.83	33.925	26.75	250	5.83	33.92	26.75	134	0.53
300	5.44	33.962	26.82	300	5.44	33.96	26.82	127	0.60
335	5.34	34.015	26.88						

14

HMCS OSHAWA; May 23, 1958; 1423 GCT; 48°11'N, 126°32.5'W; wind, 140°, 5 kt; weather, overcast; sea, slight.

0	(13.16)a)	(31.481)a)	(23.66)	0	13.16	31.48	23.66	424	0.00
5	12.94	31.648	23.83	10	12.68	31.80	24.00	392	0.04
25	11.65	32.167	24.48	20	12.03	32.06	24.32	361	0.08
50	9.16	32.478	25.14	30	11.23	32.26	24.62	333	0.11
75	8.00	32.606	25.42	50	9.16	32.48	25.14	284	0.18
100	7.00	33.177	26.01	75	8.00	32.61	25.42	258	0.24
125	6.87	33.527	26.30	100	7.00	33.18	26.01	202	0.30
150	6.88	33.592	26.35	125	6.87	33.53	26.30	175	0.35
175	6.56	33.833	26.58	150	6.88	33.59	26.35	171	0.39
200	6.17	33.882	26.67	175	6.56	33.83	26.58	149	0.43
225	5.95	33.914	26.72	200	6.17	33.88	26.67	141	0.47
250	5.74	33.919	26.75	250	5.74	33.92	26.75	133	0.54
300	5.40	33.963	26.83	300	5.40	33.96	26.83	126	0.60
350	5.27	34.004	26.88						

15

HMCS OSHAWA; May 24, 1958; 0218 GCT; 48°11'N, 126°32'W; wind, 170°, 5 kt; weather, cloudy; sea, slight.

0	(14.36)a)	(31.606)a)	(23.52)	0	14.36	31.61	23.52	438	0.00
5	13.29	31.837	23.91	10	12.33	32.03	24.25	368	0.04
25	10.15	32.428	24.94	20	10.76	32.33	24.76	320	0.08
49	8.82	32.437	25.16	30	9.65	32.49	25.08	290	0.11
74	7.74	32.726	25.55	50	8.77	32.44	25.18	281	0.16
98	7.00	33.327	26.12	75	7.70	32.74	25.57	244	0.23
123	6.85	33.572	26.34	100	6.96	33.36	26.16	188	0.28
147	6.86	33.749	26.47	125	6.85	33.59	26.35	170	0.33
172	6.58	33.830	26.58	150	6.84	33.76	26.49	157	0.37
197	6.31	33.888	26.66	175	6.55	33.84	26.59	148	0.41
221	6.00	33.898	26.70	200	6.27	33.89	26.66	141	0.44
246	5.83	33.938	26.76	250	5.80	33.94	26.76	132	0.51
295	5.53	33.969	26.82	300	5.51	33.97	26.82	127	0.58
393	5.31	34.059	26.92	400	5.28	34.06	26.92	119	0.70
494	4.82	34.035	26.95	500	4.79	34.04	26.96	116	0.82
595	4.40	34.128	27.07	600	4.38	34.13	27.08	105	0.93
797	3.88	34.310	27.27	700	4.08	34.22	27.18	96	1.03
1000	3.40	34.404	27.39	800	3.87	34.31	27.27	88	1.13
				1000	3.40	34.40	27.39	77	1.29

a) Value extrapolated graphically by three-point parabolic method.

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m
16	HMCS OSHAWA; May 24, 1958; 1419 GCT; 48°11.5'N, 126°31'W; wind, 320°, 8 kt; weather, light fog; sea, slight.								
0	(13.61)a)	(31.667)a)	(23.72)	0	13.61	31.67	23.72	419	0.00
5	13.01	31.853	23.98	10	12.44	32.02	24.21	372	0.04
25	10.95	32.363	24.75	20	11.41	32.27	24.60	335	0.08
49	9.21	32.478	25.13	30	10.52	32.43	24.88	308	0.11
74	8.55	32.564	25.30	50	9.16	32.48	25.15	284	0.17
98	7.21	33.139	25.95	75	8.51	32.58	25.32	267	0.24
123	6.85	33.542	26.31	100	7.14	33.18	25.99	204	0.30
147	6.86	33.775	26.50	125	6.84	33.57	26.33	172	0.34
172	6.73	33.862	26.58	150	6.85	33.79	26.51	155	0.38
196	6.47	33.898	26.64	175	6.70	33.87	26.59	148	0.42
221	6.33	33.911	26.67	200	6.44	33.90	26.65	143	0.46
244	5.87	33.946	26.76	250	5.79	33.95	26.77	131	0.53
295	5.61	33.964	26.80	300	5.58	33.97	26.81	128	0.59
344	5.36	34.025	26.88						
17	HMCS OSHAWA; May 25, 1958; 0224 GCT; 48°09'N, 126°28'W; wind, 310°, 10 kt; weather, cloudy; sea, moderate.								
0	(13.72)a)	(31.472)a)	(23.55)	0	13.72	31.47	23.55	435	0.00
5	13.12	31.674	23.82	10	12.56	31.85	24.07	386	0.04
25	11.08	32.267	24.66	20	11.54	32.15	24.49	346	0.08
50	9.30	32.524	25.16	30	10.66	32.36	24.80	316	0.11
75	8.18	32.666	25.44	50	9.30	32.52	25.16	283	0.17
100	7.18	33.346	26.11	75	8.18	32.67	25.44	256	0.24
125	7.30	33.676	26.36	100	7.18	33.35	26.11	192	0.30
150	7.43	33.840	26.47	125	7.30	33.68	26.36	170	0.34
175	7.22	33.903	26.55	150	7.43	33.84	26.47	160	0.38
200	6.90	33.917	26.60	175	7.22	33.90	26.55	152	0.42
225	6.50	33.934	26.67	200	6.90	33.92	26.60	148	0.46
249	6.15	33.935	26.71	250	6.14	33.94	26.72	137	0.53
300	5.74	33.971	26.79	300	5.74	33.97	26.79	130	0.60
350	5.37	34.016	26.87						
18	HMCS OSHAWA; May 25, 1958; 1424 GCT; 48°11'N, 126°31'W; wind, 130°, 8 kt; weather, overcast; sea, slight.								
0	(13.47)a)	(31.803)a)	(23.85)	0	13.47	31.80	23.85	406	0.00
5	13.02	31.924	24.03	10	12.57	32.03	24.20	373	0.04
25	11.22	32.288	24.65	20	11.67	32.21	24.51	344	0.08
50	9.00	32.476	25.17	30	10.77	32.35	24.78	319	0.11
75	8.04	32.696	25.48	50	9.00	32.48	25.17	282	0.17
100	6.85	33.244	26.08	75	8.04	32.70	25.48	252	0.24
125	7.00	(33.596)b)	(26.34)	100	6.85	33.24	26.08	196	0.29
150	6.91	33.752	26.47	125	7.00	33.60	26.34	172	0.34
175	6.79	33.880	26.59	150	6.91	33.75	26.47	159	0.38
200	6.29	33.894	26.66	175	6.79	33.88	26.59	148	0.42
225	6.25	33.926	26.69	200	6.29	33.89	26.66	141	0.46
250	5.97	33.963	26.76	250	5.97	33.96	26.76	133	0.52
300	5.70	34.009	26.83	300	5.70	34.01	26.83	127	0.59
356	5.38	34.030	26.88						

a) Value extrapolated graphically by three-point parabolic method.
b) Value interpolated graphically by three-point parabolic method.

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m

19

HMCS OSHAWA; May 26, 1958; 0220 GCT; 48°11.5'N, 126°34.5'W; wind, 330°, 8 kt; weather, overcast; sea, moderate.

0	(14.16)a)	(31.805)a)	(23.71)	0	14.16	31.80	23.71	420	0.00
5	13.52	31.909	23.92	10	12.91	32.00	24.12	381	0.04
25	11.22	32.237	24.61	20	11.76	32.17	24.46	349	0.08
50	8.92	32.446	25.15	30	10.71	32.30	24.75	322	0.11
75	7.93	32.736	25.53	50	8.92	32.45	25.15	283	0.17
100	6.89	33.245	26.07	75	7.93	32.74	25.53	247	0.24
125	6.93	33.501	26.27	100	6.89	33.25	26.07	196	0.29
150	6.92	33.722	26.45	125	6.93	33.50	26.27	178	0.34
175	6.98	33.883	26.56	150	6.92	33.72	26.45	162	0.38
200	6.58	33.881	26.62	175	6.98	33.88	26.56	151	0.42
225	6.37	33.968	26.71	200	6.58	33.88	26.62	146	0.46
242	6.26	33.960	26.72	250	6.20	33.96	26.73	136	0.53
290	5.89	33.988	26.79	300	5.82	33.99	26.80	129	0.60
386	5.27	34.054	26.92	400	5.20	34.07	26.93	118	0.72
483	4.84	34.144	27.04	500	4.77	34.16	27.05	107	0.84
580	4.42	34.196	27.12	600	4.35	34.21	27.14	99	0.94
676	4.15	34.275	27.22	700	4.09	34.29	27.24	91	1.04
870	3.66	34.354	27.33	800	3.83	34.34	27.30	85	1.12

20

HMCS OSHAWA; May 26, 1958; 1435 GCT; 48°11'N, 126°31'W; wind, 170°, 5 kt; weather, partly cloudy; sea, slight.

0	(12.75)a)	(31.803)a)	(23.99)	0	12.75	31.80	23.99	393	0.00
5	13.33	31.927	23.97	10	13.70	32.04	23.98	394	0.04
25	13.52	32.291	24.22	20	13.79	32.22	24.11	382	0.08
50	8.94	32.450	25.15	30	13.03	32.35	24.36	359	0.12
75	8.29	32.668	25.42	50	8.94	32.45	25.15	283	0.18
100	7.09	33.106	25.94	75	8.29	32.67	25.42	258	0.25
125	6.79	33.480	26.27	100	7.09	33.11	25.94	209	0.31
150	7.01	33.770	26.47	125	6.79	33.48	26.27	178	0.36
175	6.99	33.860	26.54	150	7.01	33.77	26.47	159	0.40
200	6.53	33.884	26.62	175	6.99	33.86	26.54	152	0.44
225	6.36	33.921	26.68	200	6.53	33.88	26.62	145	0.48
250	6.09	33.944	26.73	250	6.09	33.94	26.73	136	0.54
300	5.84	34.000	26.80	300	5.84	34.00	26.80	129	0.61
350	5.42	34.008	26.86						

21

HMCS OSHAWA; May 27, 1958; 0212 GCT; 48°11.5'N, 126°31.5'W; wind, 250°, 8 kt; weather, overcast; sea, slight.

0	(13.57)a)	(31.763)a)	(23.80)	0	13.57	31.76	23.80	411	0.00
5	13.50	31.851	23.88	10	13.35	31.94	23.97	395	0.04
25	12.43	32.164	24.33	20	12.82	32.09	24.20	373	0.08
50	9.28	32.468	25.12	30	11.96	32.23	24.47	348	0.12
75	8.15	32.690	25.46	50	9.28	32.47	25.12	286	0.18
100	6.86	33.144	26.00	75	8.15	32.69	25.46	254	0.25
125	6.95	33.449	26.23	100	6.86	33.14	26.00	203	0.30
150	6.99	(33.686)b)	(26.41)	125	6.95	33.45	26.23	182	0.35
175	6.85	33.856	26.56	150	6.99	33.69	26.41	165	0.40
199	6.60	33.902	26.63	175	6.85	33.86	26.56	151	0.44
225	6.25	33.925	26.69	200	6.59	33.90	26.63	144	0.47
250	6.04	33.947	26.74	250	6.04	33.95	26.74	135	0.54
300	5.60	33.974	26.81	300	5.60	33.97	26.81	128	0.61
350	5.38	34.010	26.87						

a) Value extrapolated graphically by three-point parabolic method.
b) Value interpolated graphically by three-point parabolic method.

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m

HMCS OSHAWA; May 27, 1958; 1415 GCT; 48°11'N, 126°33'W; wind, 210°, 5 kt; weather, overcast; sea, calm.

0	(13.92)a)	(31.475)a)	(23.51)	0	13.92	31.47	23.51	439	0.00
5	13.55	31.662	23.72	10	13.16	31.83	23.93	399	0.04
25	11.83	32.210	24.48	20	12.30	32.10	24.31	363	0.08
50	9.14	32.443	25.12	30	11.34	32.30	24.63	332	0.12
75	8.01	32.695	25.49	50	9.14	32.44	25.12	286	0.18
100	6.81	33.250	26.09	75	8.01	32.69	25.49	252	0.24
125	6.94	33.473	26.25	100	6.81	33.25	26.09	194	0.30
150	7.19	33.736	26.42	125	6.94	33.47	26.25	180	0.35
175	7.01	33.850	26.53	150	7.19	33.74	26.42	164	0.39
200	6.64	33.880	26.61	175	7.01	33.85	26.53	154	0.43
225	6.21	33.890	26.67	200	6.64	33.88	26.61	147	0.47
250	6.04	33.937	26.73	250	6.04	33.94	26.73	136	0.54
300	5.62	33.959	26.80	300	5.62	33.96	26.80	129	0.61
350	5.41	34.014	26.87						

a) Value extrapolated graphically by three-point parabolic method.

OBSERVED			COMP	OBSERVED						
Z	T	S	σ_t	O_2	pH	pH	Alkalinity			SiO_3-Si
							Total	Carb.	Sp.	
m	°C	‰	g/L	ml/L	measd.	in situ	meq/L	meq/L		µg at/L
HMCS OSHAWA; June 23, 1958; 1750 GCT; 48°17.5'N, 123°25.5'W; sounding, 64 fm; wind, 250°, 10 kt; weather, cloudy; sea, smooth.										
0	11.3	30.024	22.88	5.64	7.89	8.02	-	-	-	33
10	-	30.119	-	5.32	7.87	8.01	2.11	2.06	0.124	34.5
15	-	30.593	-	4.88	-	-	-	-	-	35.5
20	-	30.796	-	4.57	-	-	-	-	-	37
25	-	30.946	-	4.42	-	-	-	-	-	37.5
30	10.28	31.057	23.86	4.50	7.84	7.98	-	-	-	37.5
50	9.30	31.754	24.55	3.96	-	-	-	-	-	40
75	8.42	32.476	25.26	3.66	7.73	7.88	2.21	2.17	0.120	48

OBSERVED									
Z	Reactive Iron (µg at/L)			Nitrogen (µg at/L)			Phosphorus (µg at/L)			
								Sol.	Sol.
m	Part.	Sol.	Total	NO_3-N	NO_2-N	NH_3-N	Total	Part.	Inorg.	Org.
0				13.6	-	4.0	-		-	
10				14.6	0.23	0.85	-		-	
15				14.6	0.34	1.1	-		-	
20				19.2	0.33	2.3	-		-	
25				15.7	-	-	-		-	
30				22	0.15	1.0	2.50		-	
50				25	-	-	-		1.84	
75				22.5	-	-	2.71		2.12	

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OBSERVED			COMP	OBSERVED						
Z	T	S	σ_t	O_2	pH	pH	Alkalinity			SiO_3-Si
							Total	Carb.	Sp.	
m	°C	‰	g/L	ml/L	measd.	in situ	meq/L	meq/L		µg at/L

HMCS OSHAWA; June 24, 1958; 1622 GCT; 49°14.5'N, 123°48.5'W; sounding, 206 fm; wind, 160°, 3 kt; weather, intermittent moderate rain; sea, calm.

0	15.6	25.066	18.25	6.88	-	-	-	-	-	14.5
5	15.0 a)	26.727	19.68	7.13	8.10	8.19	1.92	1.86	0.142	21.5
10	11.4 a)	27.977	21.28	5.95	7.92	8.05	-	-	-	36
20	10.4 a)	28.828	22.11	5.26	-	-	-	-	-	42
30	9.59	29.246	22.56	4.97	7.77	7.90	-	-	-	46
49	9.3 a)	29.310	22.66	4.88	-	-	-	-	-	48.5
59	8.60	29.585	22.97	4.86	-	-	-	-	-	49
83	8.71	29.878	23.18	4.78	-	-	-	-	-	48.5
93	8.78	30.009	23.27	4.82	-	-	-	-	-	48
108	8.84	30.176	23.40	4.86	-	-	-	-	-	-
133	8.98	30.338	23.90	4.73	-	-	-	-	-	45
182	-	30.547	-	4.66	7.74	7.88	2.15	2.11	0.124	53

OBSERVED										
Z	Reactive Iron (µg at/L)			Nitrogen (µg at/L)			Phosphorus (µg at/L)			
									Sol.	Sol.
m	Part.	Sol.	Total	NO_3-N	NO_2-N	NH_3-N	Total	Part.	Inorg.	Org.
0	-	-	-	2.5	0.13	5.7	1.73	-	0.92	-
5	-	-	-	4.2	0.21	2.65	1.62	-	0.98	-
10	0.22	0.06	0.28	12.3	0.39	1.5	2.45	0.17	1.54	0.74
20	-	-	-	18.2	0.08	-	2.55	0.09	2.01	0.45
30	-	-	-	26	0.02	4.2	-	-	-	-
49	-	-	-	20	-	-	3.59	0.33	2.38	0.88
59	-	-	-	23.5	-	-	-	-	-	-
83	-	-	-	18.8	-	-	-	-	2.45	-
93	-	-	-	20.5	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-
133	-	-	-	23.5	-	-	-	-	2.20	-
182	0.11	0.09	0.20	20.5	-	-	2.93	0.06	2.52	0.35

OBSERVED			COMP	OBSERVED						
Z	T	S	σ_t	O_2	pH	pH	Alkalinity			SiO_3-Si
							Total	Carb.	Sp.	
m	°C	‰	g/L	ml/L	measd.	in situ	meq/L	meq/L		µg at/L

3

HMCS OSHAWA; June 24, 1958; 2048 GCT; 49°38.5'N, 124°42.5'W; sounding, 69 fm; wind, light airs; weather, drizzle; sea, calm.

0	18.5	25.272	17.77	6.72
10	10.90	28.655	21.89	6.14
20	9.99	28.970	22.28	5.16
30	9.85	29.100	22.40	5.08
50	9.63	29.303	22.60	4.91
75	8.99	29.578	22.92	4.59
100	8.74	29.802	23.14	4.51

a) From bathythermograph observation.

OBSERVED			COMP	OBSERVED						
Z	T	S	σ_t	O_2	pH	pH	Alkalinity			SiO_3-Si
							Total	Carb.	Sp.	
m	°C	‰	g/L	ml/L	measd.	in situ	meq/L	meq/L		µg at/L

HMCS OSHAWA; June 25, 1958; 1635 GCT; 50°30'N, 125°02'W; sounding, 343 fm; wind, light airs; weather, intermittent moderate rain; sea, calm.

0	14.4	7.7 a)	5.24	8.50	8.44	8.53	0.57	0.55	0.130	27
5	11.3 b)	23.046	17.49	6.17	–	–	–	–	–	44
10	9.8 b)	28.420	21.88	5.05	7.69	7.75	1.94	1.92	0.120	51.5
20	9.32	28.307	21.86	4.48	–	–	–	–	–	53.5
30	9.1 b)	28.775	22.24	4.32	–	–	–	–	–	56
50	8.44	29.131	22.64	3.36	–	–	–	–	–	56.5
75	8.1 c)	29.639	23.09	8.09d)	–	–	–	–	–	60.5
100	8.44	30.065	23.36	4.37	–	–	–	–	–	60
125	8.44	30.165	23.45	4.13	–	–	–	–	–	–
150	8.48	30.287	23.54	3.99	–	–	–	–	–	–
200	8.38	30.432	23.66	3.85	–	–	–	–	–	68
300	–	30.532	–	5.50	7.55	7.69	2.14	2.12	0.124	71
400	8.11	30.565	23.80	–	–	–	–	–	–	74

OBSERVED										
Z	Reactive Iron (µg at/L)			Nitrogen (µg at/L)			Phosphorus (µg at/L)			
									Sol.	Sol.
m	Part.	Sol.	Total	NO_3-N	NO_2-N	NH_3-N	Total	Part.	Inorg.	Org.
0	–	–	–	<0.3	<0.01	2.2	1.06	0.48	0.13	0.45
5	0.43	0.16	0.59	7.2	0.14	1.45	2.40	0.41	1.49	0.50
10	–	–	–	7.7	0.15	1.05	–	–	2.14	–
20	–	–	–	11.0	0.045	–	–	–	2.16	–
30	–	–	–	19.1	0.12	1.1	–	–	2.16	–
50	–	–	–	15.1	–	–	–	–	2.46	–
75	0.18	0.025	0.18	21.5	–	–	3.20	0.05	2.35	0.80
100	–	–	–	21.5	–	–	–	–	–	–
125	–	–	–	–	–	–	–	–	–	–
150	–	–	–	–	–	–	–	–	–	–
200	–	–	–	25	–	–	–	–	–	–
300	–	–	–	13.3	–	–	3.76	0.03	2.97	0.76
400	–	–	–	–	–	–	–	–	–	–

OBSERVED			COMP	OBSERVED						
Z	T	S	σ_t	O_2	pH	pH	Alkalinity			SiO_3-Si
							Total	Carb.	Sp.	
m	°C	‰	g/L	ml/L	measd.	in situ	meq/L	meq/L		µg at/L

HMCS OSHAWA; June 25, 1958; 2345 GCT; 50°29.5'N, 126°18'W; sounding, 189 fm; wind, 280°, 8 kt; weather, overcast; sea, calm.

0	13.8	30.165	23.52	7.21
10	10.15	30.409	23.37	6.20
20	9.93	30.549	23.52	5.70
30	9.72	30.755	23.72	5.53
50	9.74	30.831	23.77	5.48
75	9.51	31.009	23.94	5.38
100	9.34	31.242	24.16	5.25
150	9.33	31.366	24.25	5.17
200	9.23	31.455	24.34	5.13
250	9.23	31.508	24.38	5.08

a) From bathythermograph observation.
b) Station 4 is located in Bute Inlet where a layer of fresh water exists at the surface in summer (Tabata and Pickard, 1957).
c) This minimum was obtained by BT observation (and 7.8°C obtained at 72 m).
d) Value accepted; obtained from two determinations.

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OBSERVED			COMP	OBSERVED						
Z	T	S	σ_t	O_2	pH	pH	Alkalinity			SiO_3-Si
							Total	Carb.	Sp.	
m	°C	‰	g/L	ml/L	measd.	in situ	meq/L	meq/L		µg at/L
0	10.6	31.493	24.14	6.82	8.02	8.15	2.17	2.10	0.121	11.7
5	10.4 a)	31.483	24.17	7.08	8.00	8.13	-	-	-	11.9
10	10.1 a)	31.599	24.30	6.41	7.96	8.09	-	-	-	15
20	9.7 a)	32.021	24.70	5.84	-	-	-	-	-	20
30	9.3 a)	32.257	24.94	5.40	-	-	-	-	-	24.5
50	9.04	32.366	25.07	5.11	-	-	-	-	-	26.5
75	8.57	32.512	25.26	5.11	-	-	-	-	-	26.5
100	7.8 a)	33.012	25.76	4.19	7.76	7.90	2.25	2.21	0.121	36.5
125	6.79	33.626	26.39	2.93	-	-	-	-	-	-

HMCS OSHAWA; June 26, 1958; 1643 GCT; 50°59'N, 127°49.5'W; sounding, 74 fm; wind, 290°, 20 kt; weather, cloudy; sea, slight.

OBSERVED									
Z	Reactive Iron (µg at/L)			Nitrogen (µg at/L)			Phosphorus (µg at/L)			
									Sol.	Sol.
m	Part.	Sol.	Total	NO_3-N	NO_2-N	NH_3-N	Total	Part.	Inorg.	Org.
0	-			6.0	0.23	2.55	1.94	0.60	0.97	0.37
5	0.15			6.0	0.22	-	1.67	0.45	0.93	0.29
10	-			6.2	0.23	1.15	-	-	1.08	-
20	-			8.1	0.23	-	-	-	-	-
30	-			-	-	0.6	2.34	0.29	1.26	0.79
50	-			-	0.18	-	-	-	-	-
75	-			-	-	-	-	-	-	-
100	0.05			15.6	-	0.6	2.58	0.16	1.93	0.49
125	-			-	-	-	-	-	2.29	-

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OBSERVED			COMP	OBSERVED						
Z	T	S	σ_t	O_2	pH	pH	Alkalinity			SiO_3-Si
							Total	Carb.	Sp.	
m	°C	‰	g/L	ml/L	measd.	in situ	meq/L	meq/L		µg at/L
0	14.9	31.556	23.36	6.53						
10	14.40	31.517	23.44	6.60						
20	14.2 a)	31.523	23.49	6.55						
30	13.97	31.529	23.54	6.59						
49	9.58	32.332	24.96	5.97						
74	8.24	32.746	25.50	5.20						
98	7.79	33.269	25.97	3.95						
172	5.95	33.886	26.70	2.31						
197	5.89	33.927	26.74	2.14						
246	5.80	33.881	26.72	1.93						
296	5.50	33.991	26.84	1.44						

HMCS OSHAWA; June 27, 1958; 0010 GCT; 51°10'N, 129°31'W; sounding, 230 fm; wind, 290°, 23 kt; weather, missing; sea, slight.

a) From bathythermograph observation.

OBSERVED			COMP	OBSERVED						
Z	T	S	σ_t	O_2	pH	pH	Alkalinity			SiO_3-Si
							Total	Carb.	Sp.	
m	°C	‰	g/L	ml/L	measd.	in situ	meq/L	meq/L		µg at/L

HMCS OSHAWA; June 27, 1958; 0343 GCT; 51°30.5'N, 130°18'W; sounding, 180 fm; wind, 310°, 20 kt; weather, partly cloudy; sea, moderate.

0	14.1	31.681	23.62
10	14.33	31.611	23.52
20	13.60	31.635	23.70
30	9.43	31.837	24.60
50	8.59	32.299	25.09
75	7.70	32.966	25.74
100	6.86	33.371	26.18
125	6.67	33.677	26.44
150	6.52	33.829	26.58
200	6.05	33.916	26.72
250	5.76	33.940	26.76

OBSERVED			COMP	OBSERVED						
Z	T	S	σ_t	O_2	pH	pH	Alkalinity			SiO_3-Si
							Total	Carb.	Sp.	
m	°C	‰	g/L	ml/L	measd.	in situ	meq/L	meq/L		µg at/L

HMCS OSHAWA; June 27, 1958; 1530 GCT; 52°11'N, 130°05'W; sounding, 98 fm; wind, 290°, 15 kt; weather, cloudy; sea, slight.

0	13.2	31.541	23.71	6.42	8.12	8.22	2.18	2.11	0.122	7.1
5	13.6 a)	31.546	23.62	6.48	8.13	8.23	–	–	–	7.2
10	13.6 a)	31.525	23.61	6.60	–	–	–	–	–	7.2
20	12.5 a)	31.519	23.82	6.53	–	–	–	–	–	7.6
30	10.8 a)	31.543	24.16	6.65	8.11	8.23	–	–	–	7.6
50	9.88	31.910	24.59	6.07	–	–	–	–	–	11.0
75	8.87	32.302	25.06	5.76	–	–	–	–	–	11.1
100	8.32	32.641	25.40	5.24	–	–	–	–	–	22.5
125	7.88	32.894	25.67	4.70	–	–	–	–	–	28.7
150	7.5 a)	33.179	25.94	4.14	7.80	7.95	2.26(5)	2.22	0.120	36.5

OBSERVED										
Z	Reactive Iron (µg at/L)			Nitrogen (µg at/L)			Phosphorus (µg at/L)			
									Sol.	Sol.
m	Part.	Sol.	Total	NO_3-N	NO_2-N	NH_3-N	Total	Part.	Inorg.	Org.
0	–	–	–	0.5	–	4.35	1.10	0.21	0.40	0.49
5	0.05	0.16	0.21	<0.3	0.13	<0.2	1.03	0.18	0.50	0.35
10	–	–	–	<0.3	0.14	–	1.09	0.17	0.52	0.40
20	0.11	0.17	0.28	<0.3	0.13	–	–	–	–	–
30	–	–	–	0.9	0.35	0.25	1.08	0.18	0.66	0.24
50	–	–	–	5.8	0.13	–	–	–	–	–
75	–	–	–	–	–	–	–	–	1.04	–
100	–	–	–	13.9	–	–	–	–	–	–
125	–	–	–	–	–	–	–	–	–	–
150	–	–	–	13.5	–	–	–	–	1.81	–

a) From bathythermograph observation.

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OBSERVED			COMP	OBSERVED						
Z	T	S	σ_t	O_2	pH	pH	Alkalinity			SiO_3-Si
							Total	Carb.	Sp.	
m	°C	‰	g/L	ml/L	measd.	in situ	meq/L	meq/L		µg at/L

HMCS OSHAWA; June 27, 1958; 2032 GCT; 52°50'N, 130°48.5'W; sounding, 40 fm; wind, 330°, 15 kt; weather, cloudy; sea, slight.

0	13.6	30.929	23.16	6.38
10	13.19	30.900	23.22	6.60
20	12.91	30.953	23.30	6.62
30	12.71	31.042	23.41	6.61
50	12.50	31.683	23.94	6.38

OBSERVED			COMP	OBSERVED						
Z	T	S	σ_t	O_2	pH	pH	Alkalinity			SiO_3-Si
							Total	Carb.	Sp.	
m	°C	‰	g/L	ml/L	measd.	in situ	meq/L	meq/L		µg at/L

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HMCS OSHAWA; June 28, 1958; 1712 GCT; 53°03'N, 131°08.5'W; sounding, 18 fm; wind, 260°, 5 kt; weather, cloudy; sea, smooth.

0	14.0	30.213	22.52	6.52	8.17	8.25	2.05	1.97	0.119	<0.1
2	13.52	30.125	22.54	6.48	8.19	8.27	-	-	-	0.2
5	14.1 a)	30.125	22.44	6.48	-	-	-	-	-	0.2
10	14.1 a)	30.148	22.45	6.48	-	-	-	-	-	0.3
15	14.6 b)	30.539	22.64	6.36	-	-	-	-	-	0.5
20	14.4 a)	31.053	22.70	6.28	-	-	-	-	-	1.8
25	14.37	31.211	23.22	6.12	-	-	-	-	-	0.4
30	14.3 a)	31.253	23.26	6.09	8.09	8.17	2.10	2.03	0.119	3.9

OBSERVED										
Z	Reactive Iron (µg at/L)			Nitrogen (µg at/L)			Phosphorus (µg at/L)			
									Sol.	Sol.
m	Part.	Sol.	Total	NO_3-N	NO_2-N	NH_3-N	Total	Part.	Inorg.	Org.
0	-	-	-	<0.3	0.04	1.6	0.83	0.26	0.40	0.17
2	-	-	-	-	0.03	2.75	-	-	0.39	-
5	0.047	0.10	0.147	<0.3	0.035	1.1	0.93	0.21	0.40	0.32
10	-	-	-	<0.3	-	-	-	-	0.40	-
15	-	-	-	<0.3	0.035	1.4	0.89	0.22	0.49	0.18
20	-	0.085	-	<0.3	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-
30	-	-	-	<0.3	-	-	1.62	0.18	0.58	0.86

a) From bathythermograph observation.
b) BT observation shows maximum of 14.6°C at 18 meters.

OBSERVED			COMP	OBSERVED						
Z	T	S	σ_t	O_2	pH	pH	Alkalinity			SiO_3-Si
							Total	Carb.	Sp.	
m	°C	‰	g/L	ml/L	measd.	in situ	meq/L	meq/L		µg at/L

HMCS OSHAWA; July 1, 1958; 1610 GCT; 54°23.5'N, 132°50.5'W; sounding, 202 fm; wind, missing; weather, missing; sea, smooth.

0	12.2	30.715		7.04	8.18	8.30	–	–	–	8.1
5	11.7a)	30.707		6.70	8.17	8.29	2.12	2.03(5)	0.122	8.2
10	11.2a)	30.743		6.69	–	–	–	–	–	8.3
20	10.5a)	30.861		7.09	–	–	–	–	–	9.4
30	10.2a)	31.078		6.73	8.12	8.25	–	–	–	11.4
46b)	8.2a)	32.200		5.39	–	–	–	–	–	25.5
70b)	7.3a)	32.793		4.88	–	–	–	–	–	–
95b)	6.7a)	33.016		4.14	–	–	–	–	–	36
135b)	6.2a)	33.331		3.98	–	–	–	–	–	47
180b)	5.9a)	33.627		3.08	–	–	–	–	–	55.5
220b)	5.8a)	33.720		3.01	7.66	7.82	2.30	2.27	0.120	58.5

OBSERVED										
Z	Reactive Iron (µg at/L)			Nitrogen (µg at/L)			Phosphorus (µg at/L)			
									Sol.	Sol.
m	Part.	Sol.	Total	NO_3-N	NO_2-N	NH_3-N	Total	Part.	Inorg.	Org.
0	–	–	–	1.8	0.13	2.7	1.32	0.39	0.445	0.485
5	0.12	0.17	0.29	1.7	0.11	0.5	1.31	0.36	0.50	0.45
10	–	–	–	1.7	0.12	0.5	–	–	–	–
20	–	–	–	1.8	–	–	–	–	0.67	–
30	–	–	–	3.5	0.21	0.2	1.83	0.35	0.80	0.68
46b)	–	–	–	10.6	–	–	–	–	–	–
70b)	–	–	–	–	–	–	–	–	–	–
95b)	–	–	–	15.7	–	–	–	–	1.96	–
135b)	–	–	–	20	–	–	–	–	–	–
180b)	–	–	–	–	–	–	–	–	–	–
220b)	0.065	0.07	1.135	14.8	–	–	2.82	0.03	2.63	0.16

a) From bathythermograph observation.

b) Pretrip below 30 meters. All temperatures from BT observation. Depths below 30 meters are estimated from salinity profile and are not to be used for physical computations. However, the depths are of sufficient precision to be used for nutrient profiles.

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OBSERVED			COMP	OBSERVED						
Z	T	S	σ_t	O_2	pH	pH	Alkalinity			SiO_3-Si
							Total	Carb.	Sp.	
m	°C	‰	g/L	ml/L	measd.	in situ	meq/L	meq/L		µg at/L

HMCS OSHAWA; July 2, 1958; 1627 GCT; 52°06'N, 137°50'W; sounding, missing; wind, 130°, 15 kt; weather, drizzle; sea, smooth.

0	13.7	32.467	24.32	7.67	8.19	8.27	2.24	2.15	0.121	1.0
5	13.7 a)	32.436	24.29	6.53	-	-	-	-	-	1.0
10	13.7 a)	32.420	24.28	6.72	8.21	8.29	-	-	-	1.0
20	11.5	32.407	24.68	7.20	-	-	-	-	-	0.5
30	10.8 a)	32.421	24.84	7.26	-	-	-	-	-	1.6
50	8.44	32.461	25.24	6.66	-	-	-	-	-	8.5
75	7.6 a)	32.571	25.45	6.66	-	-	-	-	-	-
100	7.07	32.702	25.63	6.31	-	-	-	-	-	19
125	7.31	33.177	25.96	4.70	-	-	-	-	-	-
150	7.28	33.515	26.24	3.68	-	-	-	-	-	-
200	6.71	33.781	26.52	3.16	-	-	-	-	-	46
250	6.32	33.906	26.66	2.71	-	-	-	-	-	-
300	-	33.943	-	2.65	7.70	7.88	2.34(5)	2.30(5)	0.122	-
400	5.30	33.995	26.87	2.04	-	-	-	-	-	71
600	4.49	34.125	27.06	0.81	-	-	-	-	-	-
800	3.82	34.258	27.23	0.52	-	-	-	-	-	115
900	-	34.309	-	0.58	7.61	7.77	2.40	2.37	0.124	104

OBSERVED										
Z	Reactive Iron (µg at/L)			Nitrogen (µg at/L)			Phosphorus (µg at/L)			
									Sol.	Sol.
m	Part.	Sol.	Total	NO_3-N	NO_2-N	NH_3-N	Total	Part.	Inorg.	Org.
0	-	-	-	2.0	0.21	3.2	1.38	0.13	0.74	0.51
5	0.045	<0.025	0.045	1.7	0.20	0.55	-	-	-	-
10	-	-	-	1.6	0.19	<0.2	1.72	0.07	0.62	1.03
20	-	-	-	-	-	-	-	-	-	-
30	-	-	-	1.4	-	-	-	- b)	1.20	0.94
50	-	-	-	6.9	0.56	-	-	-	-	-
75	-	-	-	12.1	0.47	-	-	-	-	-
100	-	-	-	16.5	-	-	-	-	1.52	-
125	-	-	-	-	-	-	-	-	-	-
150	-	-	-	-	-	-	-	-	-	-
200	-	-	-	32	-	-	-	-	2.26	-
250	-	-	-	-	-	-	-	-	-	-
300	0.07	<0.025	0.07	34.5	-	0.6	3.25	<0.02	2.82	0.43
400	-	-	-	39.5	-	-	-	-	-	-
600	-	-	-	-	-	-	-	-	2.95	-
800	-	-	-	-	-	-	-	-	-	-
900	0.07	0.11	0.18	43	-	-	4.31	0.04	2.86	1.41

a) From bathythermograph observation.

b) Swarm of zooplankton made determination meaningless.

OBSERVED			COMP	OBSERVED						
Z	T	S	σ_t	O_2	pH	pH	Alkalinity			SiO_3-Si
							Total	Carb.	Sp.	
m	°C	‰	g/L	ml/L	measd.	in situ	meq/L	meq/L		µg at/L
HMCS OSHAWA; July 3, 1958; 1534 GCT; 49°44'N, 132°18.5'W; sounding, missing; wind, 190°, 4 kt; weather, missing; sea, calm.										
0	15.7	32.559	23.96	6.26	8.20	8.28	2.25	2.16	0.122	1.0
5	15.6 a)	32.528	23.97	6.31	-	-	-	-	-	1.0
10	15.0 a)	32.527	24.09	6.27	8.22	8.31	-	-	-	1.0
20	14.67	32.522	24.16	6.27	-	-	-	-	-	1.0
30	13.8 a)	32.507	24.32	6.81	8.21	8.30	-	-	-	1.0
50	9.39	32.546	25.16	7.39	-	-	-	-	-	5.0
75	8.07	32.559	25.37	6.96	-	-	-	-	-	11.5
100	7.14	32.730	25.62	6.60	-	-	-	-	-	19
125	5.92	33.185	26.15	5.92	-	-	-	-	-	-
150	5.50	33.511	26.46	5.32	-	-	-	-	-	33
200	5.32	33.883	26.77	4.47	-	-	-	-	-	49
250	5.09	33.939	26.85	3.64	-	-	-	-	-	-
300	-	33.919	-	3.25	7.70	7.88	2.35(5)	2.33(5)	0.123	67
400	4.31	34.027	27.00	1.59	-	-	-	-	-	83
600	3.94	34.183	27.17	0.88	-	-	-	-	-	105
800	3.48	34.331	27.32	0.69	-	-	-	-	-	115
900	-	34.380	-	0.47	7.57	7.69	2.47	2.44	0.127	126

OBSERVED										
Z	Reactive Iron (µg at/L)			Nitrogen (µg at/L)			Phosphorus (µg at/L)			
									Sol.	Sol.
m	Part.	Sol.	Total	NO_3-N	NO_2-N	NH_3-N	Total	Part.	Inorg.	Org.
0	0.41	0.025	0.41	1.2	0.045	0.35	1.32	0.18	0.58	0.56
5	-	-	-	1.9	0.045	<0.2	-	-	-	-
10	-	-	-	1.6	0.045	-	1.90	0.08	0.56	1.26
20	-	-	-	-	-	-	-	-	-	-
30	-	-	-	2.1	0.09	0.25	2.58	0.18	0.71	1.69
50	-	-	-	6.2	0.12	-	-	-	-	-
75	-	-	-	8.2	0.16	-	-	-	-	-
100	-	-	-	13.4	-	-	-	-	1.42	-
125	-	-	-	-	-	-	-	-	-	-
150	-	-	-	-	-	-	-	-	-	-
200	-	-	-	24	-	-	-	-	2.07	-
250	-	-	-	-	-	-	-	-	-	-
300	0.14	-	-	30.5	-	0.3	3.18	<0.02	2.80	0.38
400	-	-	-	31	-	-	-	-	-	-
600	-	-	-	34.5	-	-	-	-	3.06	-
800	-	-	-	-	-	-	-	-	3.20	-
900	0.09	-	-	34.5	-	1.25	4.20	<0.02	3.10	1.10

a) From bathythermograph observation.

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OBSERVED			COMP	OBSERVED						
Z	T	S	σ_t	O_2	pH	pH	Alkalinity			SiO_3-Si
							Total	Carb.	Sp.	
m	°C	‰	g/L	ml/L	measd.	in situ	meq/L	meq/L		µg at/L

HMCS OSHAWA; July 4, 1958; 1632 GCT; 48°30'N, 126°09'W; sounding, 210 fm; wind, 330°, 8 kt; weather, dry haze; sea, smooth.

0	14.7	31.888	23.66	6.62	8.22	8.30	2.24	2.15	0.135	4.9
5	14.5 a)	31.866	23.68	6.60	-	-	-	-	-	5.1
9	13.7 a)	32.057	24.00	6.84	8.22	8.31	-	-	-	5.1
19	10.6 a)	32.250	24.73	6.72	-	-	-	-	-	6.2
28	9.5 a)	32.329	24.98	6.41	8.11	8.25	2.24	2.17	0.122	7.7
48	8.81	32.491	25.22	6.27	-	-	-	-	-	11.5
73	7.86	32.995	25.77	5.28	-	-	-	-	-	23.1
97	7.4 a)	33.316	26.06	4.72	-	-	-	-	-	31.0
122	7.25	33.658	26.35	4.03	-	-	-	-	-	-
146	7.21	33.778	26.45	3.81	-	-	-	-	-	39.5
195	6.81	33.926	26.63	3.32	-	-	-	-	-	45.5
244	6.44	33.961	26.70	2.65	-	-	-	-	-	-
285	5.5 a)	34.008	26.86	1.93	7.64	7.78	2.39	2.36	0.123	65.5

OBSERVED										
Z	Reactive Iron (µg at/L)			Nitrogen (µg at/L)			Phosphorus (µg at/L)			
									Sol.	Sol.
m	Part.	Sol.	Total	NO_3-N	NO_2-N	NH_3-N	Total	Part.	Inorg.	Org.
0	-	-	-	0.7	0.055	1.3	1.19	0.23	0.48	0.48
5	0.018	0.065	0.083	1.1	0.04	1.6	1.32	0.25	0.46	0.61
9	-	-	-	2.0	-	-	-	-	0.43(5)	-
19	-	-	-	3.4	0.155	-	1.41	0.22	0.52	0.67
28	-	-	-	6.1	-	-	-	-	0.82	-
48	-	-	-	9.0	-	-	-	-	1.14	-
73	-	-	-	-	-	-	-	-	-	-
97	-	-	-	22	-	-	-	-	2.18	-
122	-	-	-	-	-	-	-	-	-	-
146	-	-	-	-	-	-	-	-	-	-
195	-	-	-	28	-	-	-	-	2.21	-
244	-	-	-	-	-	-	-	-	-	-
285	0.12	<0.025	0.12	35	0.07	1.0	3.86	0.09	2.81	0.96

a) From bathythermograph observation.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

CNAV WHITETHROAT; June 27, 1958; 0818 GCT;[a] 48°18'N, 125°10'W; sounding, 58 fm; wind, missing; weather, overcast; sea, missing. 1

0	13.50	31.649	-	23.72	0	13.50	31.65	23.72	418	0.00
10	13.83	31.725	6.89	23.72	10	13.83	31.72	23.72	419	0.04
20	9.55	32.339	6.03	24.97	20	9.55	32.34	24.97	300	0.08
30	8.83	32.511	5.33	25.22	30	8.83	32.51	25.22	276	0.11
49	7.76	33.066	4.69	25.81	50	7.72	33.09	25.83	218	0.16
73	7.41	33.340	3.93	26.08	75	6.32	28.59	22.49	537	0.25
98	6.90	33.765	2.46	26.48						

CNAV WHITETHROAT; June 27, 1958; 1239 GCT; 48°00'N, 125°48'W; sounding, 286 fm; wind, 180°, 25 kt; weather, overcast; sea, moderate. 2

0	15.10	31.89	6.00	23.58	0	15.10	31.89	23.58	432	0.00
8	15.23	31.83	6.22	23.51	10	14.91	31.85	23.59	431	0.04
17	12.70	32.03	6.74	24.18	20	12.12	32.09	24.33	361	0.08
26	11.36	32.22	6.90	24.57	30	10.81	32.29	24.72	324	0.12
40	9.58	32.44	6.79	25.05	50	8.88	32.49	25.19	279	0.18
60	8.65	32.44	6.48	25.19	75	8.07	32.72	25.49	251	0.24
79	7.93	32.83	5.04	25.60	100	7.36	33.33	26.08	195	0.30
99	7.37	33.32	4.44	26.07	150	7.11	33.81	26.49	157	0.39
118	7.36	33.54	4.13	26.24	200	6.79	33.94	26.63	144	0.47
136	7.21	33.71	3.46	26.40	250	6.23	33.93	26.70	139	0.54
155	7.07	33.84	2.96	26.52	300	5.86	33.91	26.73	136	0.61
176	6.98	33.90	2.83	26.58						
232	6.39	33.93	2.71	26.68						
300	5.86	33.99	1.87	26.73						

CNAV WHITETHROAT; June 28, 1958; 1936 GCT; 45°57'N, 131°00'W; sounding, missing; wind, missing; weather, overcast; sea, missing. 3

0	15.30	32.64	5.94	24.11	0	15.30	32.64	24.11	381	0.00
9	15.10	32.48	5.99	24.03	10	15.08	32.47	24.03	390	0.04
24	14.73	32.47	6.10	24.11	20	14.83	32.44	24.06	387	0.08
48	9.96	32.48	6.97	25.02	30	14.02	32.48	24.26	368	0.12
72	8.77	32.48	6.55	25.20	50	9.72	32.49	25.06	292	0.18
95	7.93	32.66	6.23	25.47	75	8.64	32.49	25.23	276	0.25
119	7.10	33.09	5.60	25.92	100	7.75	32.73	25.55	246	0.32
143	6.89	33.35	5.26	26.16	150	6.85	33.42	26.22	183	0.43
166	6.77	33.55	5.14	26.33	200	6.60	33.79	26.54	153	0.51
190	6.65	33.74	4.88	26.49	250	6.15	33.88	26.67	141	0.59
213	6.53	33.83	4.73	26.58	300	5.52	33.91	26.77	132	0.66
237	6.30	33.87	4.32	26.64	400	4.79	33.99	26.92	118	0.78
285	5.68	33.90	3.42	26.74	500	4.38	34.09	27.04	107	0.90
389	4.85	33.98	0.71	26.91	600	4.15	34.17	27.13	99	1.00
486	4.43	34.08	0.16	27.03	700	3.93	34.27	27.24	90	1.10
584	4.19	34.16	0.16	27.12	800	3.71	34.38	27.34	81	1.18
778	3.76	34.36	0.08	27.33	1000	3.32	34.40	27.40	76	1.34
974	3.37	34.40	0.11	27.39	1200	2.94	34.45	27.48	70	1.49
1459	2.48	34.53	0.12	27.58						

a) Although not indicated in the tabulation, two casts were made at each station, the first to a depth of 300 meters and the second to a maximum depth of 2000 meters. The time reported is the time of the messenger release of the shallow cast. The deeper cast was made about 20 to 30 minutes later.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
4	CNAV WHITETHROAT; June 29, 1958; 1302 GCT; 44°43'N, 133°20'W; sounding, missing; wind, 280°, 25 kt; weather, overcast; sea, moderate.									
0	15.60	32.59	6.10	24.01	0	15.60	32.59	24.01	392	0.00
10	15.04	32.56	5.98	24.11	10	15.04	32.56	24.11	382	0.04
24	15.04	32.56	5.92	24.11	20	14.95	32.56	24.12	381	0.08
48	11.93	32.53	6.68	24.71	30	14.63	32.56	24.19	374	0.12
73	9.81	32.56	6.18	25.10	50	11.72	32.54	24.75	322	0.18
97	8.09	32.76	5.32	25.52	75	9.65	32.57	25.14	285	0.26
122	7.09	33.24	5.33	26.04	100	7.93	32.80	25.58	243	0.33
146	7.01	33.52	5.32	26.27	150	7.01	33.55	26.30	175	0.43
170	7.05	33.71	5.33	26.42	200	6.86	33.81	26.52	155	0.52
195	(6.91)a)	33.80	5.15	(26.51)	250	6.30	33.90	26.67	142	0.59
219	6.61	33.84	4.65	26.58	300	5.69	33.90	26.74	134	0.66
243	6.38	33.89	4.46	26.65	400	4.99	33.93	26.85	125	0.79
292	5.77	33.90	3.77	26.73	500	4.27	34.01	26.99	112	0.91
358	5.33	33.91	3.09	26.80	600	3.95	34.11	27.10	102	1.02
448	4.55	33.97	1.95	26.93	700	3.74	34.19	27.19	94	1.12
538	4.15	34.05	0.12	27.04	800	3.53	34.27	27.27	87	1.21
716	3.72	34.20	0.02	27.20						
895	3.33	34.34	-	27.35						
5	CNAV WHITETHROAT; June 30, 1958; 0329 GCT; 44°04'N, 135°35'W; sounding, missing; wind, 280°, 30 kt; weather, overcast; sea, rough.									
0	15.10	32.68	6.09	24.19	0	15.10	32.68	24.19	374	0.00
10	14.80	32.63	6.20	24.21	10	14.80	32.63	24.21	372	0.04
25	14.41	32.63	6.36	24.29	20	14.53	32.62	24.26	368	0.08
50	10.67	32.65	6.76	25.03	30	13.97	32.63	24.38	356	0.11
75	9.57	32.67	6.54	25.22	50	10.67	32.65	25.03	295	0.18
100	8.68	32.98	6.36	25.61	75	9.57	32.67	25.22	277	0.25
125	8.11	33.34	5.90	25.98	100	8.68	32.98	25.61	240	0.31
150	7.35	33.58	5.69	26.28	150	7.35	33.58	26.28	178	0.42
175	7.25	33.75	5.31	26.42	200	7.23	33.85	26.51	157	0.50
200	7.23	33.85	4.68	26.51	250	6.71	33.90	26.61	147	0.58
225	6.89	33.91	4.02	26.60	300	6.13	33.89	26.68	141	0.65
250	6.71	33.90	2.87	26.61	400	5.12	33.93	26.84	127	0.79
300	6.13	(33.89)a)	1.68	(26.68)	500	4.29	34.00	26.98	113	0.91
385	5.26	33.92	0.91	26.81	600	4.01	34.10	27.09	103	1.02
481	4.40	33.98	0.46	26.95	700	3.74	34.19	27.19	94	1.12
578	4.08	34.08	0.39	27.07	800	3.51	34.27	27.27	87	1.21
774	3.57	34.25	0.09	27.25	1000	3.15	34.39	27.40	75	1.37
1154	2.97	34.45	0.06	27.47						
6	CNAV WHITETHROAT; June 30, 1958; 1956 GCT; 43°14'N, 138°10'W; sounding, missing; wind, 290°, 25 kt; weather, overcast; sea, rough.									
0	15.40	32.74	5.76	24.17	0	15.40	32.74	24.17	376	0.00
10	15.47	32.68	5.94	24.10	10	15.47	32.68	24.10	382	0.04
24	15.08	32.70	6.03	24.20	20	15.25	32.68	24.15	378	0.08
48	11.25	32.75	6.36	25.01	30	14.50	32.71	24.34	361	0.11
73	9.75	32.76	6.63	25.27	50	11.04	32.76	25.05	293	0.18
97	9.27	32.89	5.94	25.44	75	9.67	32.76	25.28	271	0.25
122	8.39	33.28	5.68	25.89	100	9.18	32.92	25.48	253	0.32
146	8.00	33.69	5.31	26.27	150	7.95	33.73	26.31	175	0.42
170	7.73	33.80	5.35	26.39	200	7.45	33.89	26.50	157	0.51
194	7.50	33.88	5.25	26.49	250	6.84	33.93	26.62	146	0.58
218	7.31	33.91	5.01	26.54	300	6.19	33.92	26.70	139	0.66
242	6.95	33.92	4.66	26.60	400	4.95	33.96	26.88	123	0.79
291	6.31	33.92	4.18	26.69	500	4.27	34.02	27.01	111	0.91
382	5.13	33.95	3.14	26.85	600	3.95	34.11	27.11	102	1.01
480	4.37	34.01	1.81	26.98	700	3.68	34.19	27.20	94	1.11
576	4.03	34.09	1.47	27.08	800	3.47	34.26	27.27	87	1.20
768	3.54	34.24	0.93	27.25	1000	3.09	34.37	27.39	76	1.37
1152	2.87	34.42	0.39	27.46						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

CNAV WHITETHROAT; July 1, 1958; 1627 GCT; 43°27'N, 141°50'W; sounding, missing; wind, 260°, 8 kt; weather, overcast; sea, slight. 7

0	15.30	33.07	5.94	24.44	0	15.30	33.07	24.44	350	0.00
10	15.17	33.05	5.98	24.46	10	15.17	33.05	24.46	349	0.04
25	13.87	33.05	6.44	24.73	20	14.45	33.05	24.60	335	0.07
50	9.61	33.08	6.76	25.54	30	13.23	33.05	24.86	311	0.10
75	8.95	33.10	6.44	25.66	50	9.61	33.08	25.54	246	0.16
100	8.76	33.15	6.33	25.73	75	8.95	33.10	25.66	235	0.22
125	8.58	33.74	5.44	26.22	100	8.76	33.15	25.73	229	0.28
150	8.11	33.89	5.31	26.40	150	8.11	33.89	26.40	166	0.38
175	7.80	33.89	5.35	26.45	200	7.51	33.92	26.52	156	0.46
200	7.51	33.92	5.19	26.52	250	6.95	33.93	26.60	148	0.53
225	7.24	33.93	4.88	26.57	300	6.33	33.94	26.69	140	0.61
250	6.95	33.93	4.67	26.60	400	5.23	33.95	26.84	126	0.74
300	6.33	33.94	4.17	26.69	500	4.44	34.02	26.98	113	0.86
394	5.29	33.95	2.78	26.83	600	4.06	34.11	27.10	103	0.97
492	4.49	34.01	1.88	26.97	700	3.74	34.19	27.19	94	1.07
590	4.10	34.10	1.10	27.09	800	3.48	34.26	27.27	87	1.16
786	3.51	34.25	0.56	27.26	1000	3.08	34.35	27.38	77	1.33
982	3.11	34.34	0.20	27.37	1200	2.74	34.43	27.48	69	1.48
1474	2.37	34.52	0.63	27.58						

CNAV WHITETHROAT; July 2, 1958; 1050 GCT; 43°50'N, 145°30'W; sounding, missing; wind, 270°, 18 kt; weather, drizzle; sea, missing. 8

0	15.20	32.63	5.96	24.13	0	15.20	32.63	24.13	380	0.00
10	15.02	33.04	6.00	24.48	10	15.02	33.04	24.48	346	0.04
24	13.70	33.07	6.36	24.78	20	14.20	33.13	24.72	324	0.07
48	8.79	33.06	6.80	25.66	30	12.79	33.07	24.96	301	0.10
71	8.45	32.63	6.56	25.37	50	8.59	33.04	25.67	234	0.16
95	8.39	33.19	6.53	25.81	75	8.42	32.65	25.39	261	0.22
119	8.28	33.08	5.89	25.74	100	8.37	33.22	25.84	218	0.28
142	8.36	33.30	5.25	25.91	150	8.33	33.48	26.05	199	0.38
165	8.19	33.93	5.13	26.43	200	7.46	33.92	26.52	155	0.47
189	7.76	33.94	5.22	26.50	250	6.35	33.88	26.64	144	0.55
212	7.07	33.88	4.97	26.55	300	5.75	33.87	26.71	138	0.62
236	6.58	33.88	4.96	26.62	400	4.86	33.95	26.88	122	0.75
283	5.95	33.87	4.40	26.69	500	4.40	34.04	27.00	111	0.87
398	4.87	33.95	2.52	26.88	600	4.02	34.11	27.10	102	0.98
497	4.41	34.04	1.74	27.00	700	3.70	34.19	27.20	94	1.07
597	4.03	34.11	1.08	27.10	800	3.43	34.27	27.28	86	1.16
796	3.44	34.27	0.57	27.28	1000	3.00	34.36	27.40	76	1.33
995	3.01	34.36	0.45	27.39	1200	2.65	34.43	27.49	68	1.47
1492	2.29	34.50	0.44	27.57						

CNAV WHITETHROAT; July 3, 1958; 0033 GCT; 45°02'N, 147°06'W; sounding, 2000 fm; wind, 220°, 12 kt; weather, drizzle; sea, slight. 9

0	13.90	33.06	5.90	24.73	0	13.90	33.06	24.73	323	0.00
10	13.30	33.03	6.38	24.83	10	13.30	33.03	24.83	313	0.03
24	13.00	33.06	6.65	24.91	20	13.02	33.05	24.90	307	0.06
48	8.94	33.16	6.54	25.71	30	12.40	33.08	25.04	293	0.09
73	8.23	33.18	6.63	25.84	50	8.75	33.16	25.74	227	0.15
98	7.61	33.19	6.12	25.93	75	8.18	33.19	25.85	218	0.20
122	7.79	33.29	6.44	25.98	100	7.60	33.19	25.93	209	0.26
146	8.07	33.68	5.76	26.25	150	8.07	33.72	26.28	177	0.35
170	7.85	33.88	5.15	26.44	200	7.49	33.95	26.54	153	0.44
195	7.60	33.95	5.02	26.53	250	6.39	33.89	26.65	143	0.51
219	6.92	33.92	4.84	26.60	300	5.67	33.90	26.75	134	0.58
243	6.50	33.90	4.86	26.64	400	4.67	33.95	26.90	120	0.71
291	5.79	33.90	4.48	26.73	500	4.37	34.06	27.02	110	0.82
400	4.67	33.95	2.58	26.90	600	4.04	34.14	27.12	100	0.93
500	4.37	34.06	1.74	27.02	700	3.72	34.22	27.21	92	1.03
600	4.04	34.14	1.11	27.12	800	3.40	34.28	27.29	85	1.12
800	3.40	34.28	0.71	27.29	1000	2.98	34.37	27.41	75	1.28
1000	2.98	34.37	0.53	27.41	1200	2.64	34.44	27.49	67	1.42
1500	2.29	34.51	0.57	27.58	1500	2.29	34.51	27.58	60	1.62
2000	1.92	34.59	1.00	27.67	2000	1.92	34.59	27.67	52	1.90

	OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
	Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
	m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
10	CNAV WHITETHROAT; July 3, 1958; 1255 GCT; 45°53'N, 148°50'W; sounding, missing; wind, 180°, 4 kt; weather, cloudy; sea, slight.										
	0	12.40	33.06	6.14	25.03	0	12.40	33.06	25.03	294	0.00
	10	12.26	33.01	6.35	25.02	10	12.26	33.01	25.02	295	0.03
	24	11.63	33.01	6.85	25.13	20	11.86	33.00	25.08	289	0.06
	48	8.26	33.03	6.98	25.71	30	11.06	33.01	25.24	274	0.09
	73	7.27	33.05	6.70	25.87	50	8.09	33.03	25.74	227	0.14
	97	7.04	33.10	6.51	25.94	75	7.22	33.05	25.88	214	0.19
	121	6.75	33.12	6.28	25.99	100	7.01	33.10	25.95	208	0.25
	145	7.17	33.70	5.34	26.40	150	7.16	33.77	26.45	161	0.34
	170	6.79	33.84	5.07	26.56	200	6.26	33.86	26.64	144	0.42
	196	6.33	33.86	4.88	26.63	250	5.34	33.86	26.76	132	0.49
	218	5.91	33.85	4.08	26.68	300	4.72	33.91	26.86	123	0.55
	242	5.47	33.86	3.90	26.74	400	4.20	33.97	26.97	113	0.67
	290	4.83	33.90	3.39	26.84	500	4.04	34.09	27.08	103	0.78
	396	4.21	33.96	2.37	26.96	600	3.82	34.17	27.17	96	0.88
	495	4.05	34.09	1.74	27.08	700	3.58	34.24	27.25	89	0.97
	594	3.83	34.17	1.13	27.17	800	3.35	34.29	27.31	83	1.06
	793	3.36	34.29	0.99	27.31	1000	2.99	34.37	27.41	75	1.22
	989	3.01	34.37	0.75	27.40	1200	2.69	34.44	27.49	68	1.36
	1486	2.34	34.51	0.93	27.57						
11	CNAV WHITETHROAT; July 4, 1958; 0133 GCT; 46°49'N, 151°18'W; sounding, 2000 fm; wind, 270°, 10 kt; weather, cloudy; sea, moderate.										
	0	11.30	33.18	6.83	25.33	0	11.30	33.18	25.33	266	0.00
	10	11.27	33.13	6.65	25.29	10	11.27	33.13	25.29	269	0.03
	25	11.15	33.21	6.97	25.38	20	11.20	33.16	25.33	266	0.05
	50	9.74	33.23	6.74	25.63	30	10.99	33.22	25.42	258	0.08
	75	7.83	33.29	6.69	25.98	50	9.74	33.23	25.63	237	0.13
	100	7.19	33.34	6.57	26.11	75	7.83	33.29	25.98	205	0.19
	125	7.75	33.73	5.75	26.34	100	7.19	33.34	26.11	193	0.24
	150	7.51	33.90	5.13	26.50	150	7.51	33.90	26.50	156	0.32
	175	7.11	33.91	5.10	26.56	200	6.52	33.90	26.64	144	0.40
	200	6.52	33.90	4.87	26.64	250	5.66	33.86	26.71	137	0.47
	225	6.03	33.88	4.67	26.68	300	4.99	33.86	26.80	129	0.54
	250	5.66	33.86	4.54	26.71	400	4.32	33.93	26.93	117	0.66
	300	4.99	33.86	4.01	26.80	500	4.13	34.07	27.06	106	0.77
	392	4.35	33.92	2.81	26.91	600	3.90	34.17	27.16	97	0.88
	491	4.15	34.06	1.64	27.05	700	3.67	34.23	27.23	90	0.97
	587	3.93	34.16	1.12	27.14	800	3.44	34.28	27.29	85	1.06
	785	3.47	34.27	0.69	27.28	1000	3.02	34.37	27.40	75	1.22
	982	3.05	34.36	0.48	27.39	1200	2.68	34.44	27.49	67	1.37
	1474	2.37	34.50	0.52	27.57	1500	2.34	34.51	27.57	60	1.56
	1966	1.99	34.58	1.30	27.66						
12	CNAV WHITETHROAT; July 4, 1958; 1230 GCT; 47°55'N, 152°45'W; sounding, missing; wind, 150°, 10 kt; weather, intermittent slight rain; sea, slight.										
	0	10.40	32.98	6.68	25.33	0	10.40	32.98	25.33	265	0.00
	10	10.15	33.00	6.50	25.39	10	10.15	33.00	25.39	260	0.03
	25	8.87	33.04	6.57	25.62	20	9.42	33.03	25.53	247	0.05
	49	8.02	33.04	6.80	25.76	30	8.57	33.04	25.67	233	0.08
	73	6.37	33.16	5.86	26.07	50	7.97	33.04	25.77	225	0.12
	98	6.64	33.35	6.25	26.19	75	6.32	33.17	26.09	194	0.18
	123	6.45	33.46	5.69	26.30	100	6.64	33.36	26.20	184	0.22
	148	7.01	33.90	4.96	26.57	150	7.00	33.91	26.58	149	0.31
	172	6.42	33.88	3.94	26.64	200	5.61	33.84	26.71	137	0.38
	197	5.68	33.84	4.42	26.70	250	4.96	33.85	26.79	129	0.44
	221	5.19	33.84	3.65	26.75	300	4.41	33.87	26.87	122	0.51
	246	5.00	33.85	3.51	26.79	400	3.95	34.00	27.02	109	0.62
	295	4.45	33.86	3.35	26.86	500	3.82	34.11	27.12	100	0.73
	379	4.01	33.97	2.27	26.99	600	3.69	34.20	27.21	92	0.83
	474	3.86	34.08	1.61	27.09	700	3.47	34.27	27.28	86	0.92
	569	3.74	34.18	1.00	27.18	800	3.24	34.31	27.33	81	1.00
640	758	3.32	34.29	0.57	27.31	1000	2.95	34.38	27.42	74	1.16
	948	3.03	34.36	0.48	27.39	1200	2.66	34.44	27.49	67	1.30
	1421	2.36	34.49	1.03	27.56						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

CNAV WHITETHROAT; July 5, 1958; 0020 GCT; 48°54'N, 154°30'W; sounding, 2000 fm; wind, 140°, 7 kt; weather, missing; sea, slight. 13

0	9.70	32.88	6.61	25.37	0	9.70	32.88	25.37	262	0.00
10	8.95	32.89	6.84	25.49	10	8.95	32.89	25.49	250	0.03
25	8.56	32.91	6.98	25.57	20	8.59	32.90	25.56	244	0.05
50	5.93	32.96	7.15	25.97	30	8.23	32.92	25.63	237	0.08
75	5.13	33.01	6.90	26.10	50	5.93	32.96	25.97	205	0.12
100	4.76	33.35	5.84	26.42	75	5.13	33.01	26.10	192	0.17
125	4.37	33.69	4.55	26.73	100	4.76	33.35	26.42	163	0.21
150	4.00	33.73	4.14	26.80	150	4.00	33.73	26.80	127	0.29
175	3.82	33.77	3.62	26.85	200	3.60	33.81	26.90	117	0.35
200	3.60	33.81	2.96	26.90	250	3.59	33.87	26.95	113	0.41
225	3.61	33.85	2.46	26.93	300	3.57	33.95	27.01	108	0.46
250	3.59	33.87	2.20	26.95	400	3.63	34.05	27.09	101	0.57
300	3.57	33.95	1.62	27.01	500	3.65	34.16	27.17	94	0.67
398	3.63	34.05	1.13	27.09	600	3.56	34.24	27.25	88	0.76
498	3.65	34.15	0.84	27.17	700	3.36	34.30	27.31	82	0.84
597	3.56	34.24	0.68	27.25	800	3.08	34.32	27.36	78	0.92
796	3.09	34.32	0.58	27.36	1000	2.76	34.40	27.45	70	1.08
995	2.77	34.40	0.64	27.45	1200	2.51	34.46	27.52	64	1.21
1493	2.27	34.52	0.84	27.59	1500	2.26	34.52	27.59	58	1.40
1990	1.94	34.58	1.29	27.66						

CNAV WHITETHROAT; July 5, 1958; 1130 GCT; 49°55'N, 156°12'W; sounding, missing; wind, 140°, 5 kt; weather, overcast; sea, slight. 14

0	10.00	32.85	6.22	25.30	0	10.00	32.85	25.30	268	0.00
10	8.90	32.84	6.80	25.46	10	8.90	32.84	25.46	253	0.03
25	8.44	32.85	6.60	25.54	20	8.43	32.84	25.54	246	0.05
50	5.51	32.97	4.88	26.03	30	8.07	32.86	25.61	239	0.08
75	4.97	33.07	-	26.17	50	5.51	32.97	26.03	199	0.12
100	4.63	33.36	5.01	26.44	75	4.97	33.07	26.17	186	0.17
125	3.94	33.63	2.65	26.72	100	4.63	33.36	26.44	161	0.21
150	3.65	33.71	3.36	26.82	150	3.65	33.71	26.82	125	0.28
175	3.60	33.78	2.33	26.88	200	3.57	33.83	26.92	115	0.34
200	3.57	33.83	2.06	26.92	250	3.59	33.90	26.97	111	0.40
225	3.59	33.87	1.04	26.95	300	3.63	33.98	27.04	106	0.46
250	3.59	33.90	1.59	26.97	400	3.61	34.08	27.12	99	0.56
300	3.63	33.98	0.92	27.04	500	3.51	34.17	27.20	92	0.66
400	3.61	34.08	0.65	27.12	600	3.29	34.25	27.28	84	0.74
500	3.51	34.17	0.65	27.20	700	3.12	34.30	27.34	79	0.83
600	3.29	34.25	0.29	27.28	800	2.99	34.33	27.37	77	0.91
800	2.99	34.33	0.31	27.37	1000	2.71	34.40	27.45	70	1.05
1000	2.71	34.40	0.36	27.45	1200	2.47	34.46	27.52	64	1.19
1500	2.19	34.52	0.99	27.59	1500	2.19	34.52	27.59	58	1.37

CNAV WHITETHROAT; July 6, 1958; 0028 GCT; 50°54'N, 157°50'W; sounding, 2000 fm; wind, 140°, 12 kt; weather, overcast; sea, slight. 15

0	9.10	32.77	6.97	25.38	0	9.10	32.77	25.38	261	0.00
10	8.36	32.75	7.04	25.48	10	8.36	32.75	25.48	252	0.03
25	7.77	32.78	7.13	25.58	20	7.90	32.76	25.55	244	0.05
50	6.09	32.80	7.29	25.83	30	7.50	32.78	25.63	237	0.08
75	4.81	32.85	7.12	26.01	50	6.09	32.80	25.83	218	0.12
100	3.92	33.56	3.51	26.67	75	4.81	32.85	26.01	201	0.17
125	3.82	33.76	2.49	26.84	100	3.92	33.56	26.67	138	0.22
150	3.63	33.82	2.09	26.91	150	3.63	33.82	26.91	117	0.28
175	3.72	33.86	1.71	26.93	200	3.67	33.90	26.97	112	0.34
200	3.67	33.90	1.41	26.97	250	3.70	33.97	27.02	107	0.39
225	3.69	33.95	1.12	27.00	300	3.75	34.04	27.07	103	0.45
250	3.70	33.97	0.99	27.02	400	3.58	34.13	27.16	95	0.54
300	3.75	34.04	0.54	27.07	500	3.51	34.20	27.22	89	0.64
400	3.58	34.13	0.58	27.16	600	3.29	34.26	27.29	84	0.73
500	3.51	34.20	0.44	27.22	700	3.11	34.30	27.34	79	0.81
600	3.29	34.26	0.30	27.29	800	2.96	34.34	27.39	75	0.89
800	2.96	34.34	0.30	27.39	1000	2.67	34.41	27.46	69	1.03
1000	2.67	34.41	0.57	27.46	1200	2.43	34.46	27.52	63	1.17
1500	2.15	34.52	0.94	27.60	1500	2.15	34.52	27.60	57	1.35
2000	1.87	34.59	1.51	27.67	2000	1.87	34.59	27.67	51	1.62

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
16	CNAV WHITETHROAT; July 6, 1958; 1149 GCT; 51°50'N, 159°35'W; sounding, missing; wind, 140°, 15 kt; weather, overcast; sea, moderate.									
0	8.20	32.78	6.93	25.53	0	8.20	32.78	25.53	246	0.00
10	7.97	32.71	7.11	25.51	10	7.97	32.71	25.51	249	0.02
24	7.97	32.72	7.12	25.51	20	7.93	32.70	25.50	249	0.05
49	6.59	32.74	7.24	25.72	30	7.80	32.72	25.54	246	0.08
73	5.15	32.78	7.73	25.92	50	6.53	32.75	25.73	228	0.12
97	3.86	33.26	4.67	26.44	75	5.04	32.80	25.95	207	0.18
121	4.01	33.75	2.04	26.81	100	3.80	33.32	26.49	156	0.22
145	3.94	33.86	2.35	26.91	150	3.93	33.88	26.92	115	0.29
170	3.88	33.90	1.30	26.95	200	3.85	33.95	26.99	109	0.35
196	3.85	33.95	1.14	26.99	250	3.76	34.02	27.05	104	0.40
218	3.83	33.98	0.75	27.01	300	3.74	34.08	27.10	100	0.45
242	3.77	34.01	0.84	27.04	400	3.63	34.15	27.17	93	0.55
291	3.75	34.07	0.53	27.09	500	3.50	34.21	27.23	89	0.64
382	3.65	34.14	0.80	27.16	600	3.32	34.27	27.29	83	0.73
477	3.54	34.20	0.78	27.22	700	3.15	34.32	27.35	78	0.81
572	3.37	34.25	0.77	27.27	800	2.98	34.37	27.41	74	0.89
762	3.04	34.35	0.72	27.39	1000	2.69	34.43	27.48	67	1.03
954	2.75	34.41	0.76	27.46	1200	2.43	34.48	27.54	62	1.16
1430	2.19	34.53	1.27	27.60						
17	CNAV WHITETHROAT; July 7, 1958; 0013 GCT; 52°42'N, 161°35'W; sounding, 2000 fm; wind, 220°, 10 kt; weather, overcast; sea, moderate.									
0	8.30	32.71	7.00	25.45	0	8.30	32.71	25.45	254	0.00
10	8.27	32.71	7.11	25.46	10	8.27	32.71	25.46	253	0.02
24	8.07	32.71	7.37	25.49	20	8.15	32.71	25.48	252	0.05
49	5.45	32.82	7.16	25.92	30	7.71	32.73	25.55	244	0.08
73	4.20	33.10	5.64	26.28	50	5.37	32.83	25.94	208	0.12
98	4.00	33.55	3.17	26.65	75	4.14	33.13	26.31	173	0.17
122	4.13	33.87	1.39	26.90	100	4.00	33.58	26.68	138	0.21
146	4.11	33.95	1.08	26.96	150	4.11	33.95	26.97	111	0.27
171	4.09	33.98	1.06	26.99	200	4.01	34.02	27.03	106	0.33
195	4.02	34.01	0.72	27.02	250	3.92	34.08	27.08	101	0.38
219	3.97	34.04	0.72	27.05	300	3.84	34.11	27.12	98	0.43
244	3.93	34.07	0.43	27.08	400	3.70	34.18	27.19	92	0.52
292	3.85	34.11	0.41	27.11	500	3.47	34.25	27.27	85	0.61
392	3.71	34.18	0.44	27.18	600	3.29	34.30	27.32	80	0.70
490	3.49	34.25	0.43	27.26	700	3.11	34.35	27.37	76	0.78
588	3.31	34.30	0.47	27.32	800	2.95	34.38	27.42	72	0.85
784	2.97	34.38	0.53	27.41	1000	2.68	34.43	27.48	67	0.99
980	2.71	34.43	0.54	27.48	1200	2.43	34.48	27.54	62	1.12
1472	2.11	34.55	1.11	27.63	1500	2.09	34.56	27.63	54	1.30
1962	1.83	34.61	1.67	27.70						
18	CNAV WHITETHROAT; July 7, 1958; 1129 GCT; 54°02'N, 163°34'W; sounding, 52 fm; wind, 220°, 15 kt; weather, overcast; sea, moderate.									
0	8.60	32.15	6.90	24.97	0	8.60	32.15	24.97	299	0.00
10	8.53	32.16	6.99	24.99	10	8.53	32.16	24.99	298	0.03
20	7.97	32.14	6.85	25.06	20	7.97	32.14	25.06	292	0.06
30	6.15	32.17	6.70	25.33	30	6.15	32.17	25.33	266	0.09
40	5.97	32.23	6.63	25.39	50	5.62	32.27	25.47	253	0.14
50	5.62	32.27	6.44	25.47	75	5.61	32.39	25.56	244	0.20
60	5.61	32.32	6.38	25.51						
70	5.60	32.38	6.32	25.55						
80	5.63	32.39	6.24	25.56						
90	5.60	32.42	6.33	25.59						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

19

CNAV WHITETHROAT; July 7, 1958; 1915 GCT; 54°24'N, 165°18'W; sounding, 100 fm; wind, missing; weather, overcast; sea, missing.

0	7.80	32.55	7.30	25.40	0	7.80	32.55	25.40	259	0.00
10	6.64	32.54	7.31	25.55	10	6.64	32.54	25.55	244	0.02
20	6.61	32.53	7.32	25.55	20	6.61	32.53	25.55	244	0.05
30	6.65	32.53	7.35	25.55	30	6.65	32.53	25.55	245	0.08
50	6.63	32.54	7.30	25.55	50	6.63	32.54	25.55	245	0.12
75	6.45	32.60	6.94	25.63	75	6.45	32.60	25.63	238	0.18
100	5.83	32.76	6.33	25.83	100	5.83	32.76	25.83	219	0.24
125	5.23	32.90	6.03	26.01	150	5.27	32.91	26.01	202	0.35
150	5.27	32.91	5.98	26.01						

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CNAV WHITETHROAT; July 8, 1958; 0850 GCT; 54°17'N, 166°20'W; sounding, 440 fm; wind, missing; weather, overcast; sea, missing.

0	7.60	32.73	7.31	25.57	0	7.60	32.73	25.57	242	0.00
10	7.41	32.71	7.37	25.58	10	7.41	32.71	25.58	242	0.02
24	6.05	32.97	6.48	25.97	20	6.57	32.86	25.81	220	0.05
48	5.63	33.00	5.84	26.04	30	5.72	33.03	26.05	197	0.07
71	5.45	33.02	5.44	26.08	50	5.61	33.00	26.05	198	0.11
95	5.31	33.07	5.35	26.13	75	5.42	33.03	26.09	194	0.16
119	4.92	33.13	5.43	26.22	100	5.25	33.08	26.15	188	0.21
142	4.80	33.19	5.44	26.28	150	4.76	33.21	26.30	174	0.30
166	4.66	33.25	5.29	26.35	200	4.21	33.28	26.42	163	0.38
190	4.26	33.25	5.43	26.39	250	3.42	33.39	26.59	147	0.46
213	4.24	33.34	4.86	26.46	300	3.69	33.53	26.67	140	0.53
236	3.60	33.37	5.33	26.55	400	3.80	33.79	26.87	122	0.66
284	3.67	33.48	4.50	26.64	500	3.61	33.98	27.04	107	0.78
376	3.81	33.73	2.84	26.82	600	3.41	34.12	27.17	95	0.88
469	3.66	33.93	-	26.99						
562	3.49	34.07	1.09	27.12						
656	3.28	34.18	0.86	27.23						

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CNAV WHITETHROAT; July 8, 1958; 1720 GCT; 54°49'N, 167°52'W; sounding, 800 fm; wind, 220°, 10 kt; weather, drizzle; sea, slight.

0	7.90	32.41	7.19	25.28	0	7.90	32.41	25.28	270	0.00
10	7.91	32.72	7.22	25.52	10	7.91	32.72	25.52	248	0.03
25	7.34	32.79	7.30	25.66	20	7.61	32.82	25.64	236	0.05
50	4.33	33.11	6.31	26.27	30	6.94	32.84	25.75	226	0.07
75	3.99	33.17	6.23	26.36	50	4.33	33.11	26.27	176	0.11
100	3.75	33.22	6.07	26.42	75	3.99	33.17	26.36	168	0.16
125	3.83	33.32	5.51	26.49	100	3.75	33.22	26.42	162	0.20
150	3.53	33.33	5.38	26.53	150	3.53	33.33	26.53	152	0.28
175	3.51	33.37	5.30	26.56	200	3.67	33.45	26.61	145	0.35
200	3.67	33.45	5.24	26.61	250	3.83	33.61	26.72	135	0.42
225	3.74	33.54	4.16	26.67	300	3.81	33.76	26.84	124	0.49
250	3.83	33.61	3.46	26.72	400	3.66	33.95	27.01	109	0.61
300	3.81	33.76	2.60	26.84	500	3.51	34.04	27.09	102	0.71
395	3.67	33.94	1.62	27.00	600	3.34	34.14	27.19	93	0.81
494	3.52	34.03	1.20	27.09	700	3.19	34.21	27.26	87	0.90
592	3.35	34.13	0.86	27.18	800	3.06	34.27	27.32	82	0.99
790	3.08	34.27	0.62	27.32	1000	2.69	34.38	27.44	71	1.14
986	2.71	34.38	0.63	27.44	1200	2.45	34.45	27.51	64	1.28
1380	2.36	34.47	0.71	27.54						

POG

NP-58-2

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
22	CNAV WHITETHROAT; July 9, 1958; 0226 GCT; 55°21'N, 169°28'W; sounding, 1350 fm; wind, variable, 3 kt; weather, overcast; sea, calm.									
0	7.50	32.63	7.30	25.50	0	7.50	32.63	25.50	249	0.00
10	7.55	32.56	7.08	25.45	10	7.55	32.56	25.45	254	0.02
25	6.66	32.76	6.19	25.72	20	7.09	32.66	25.59	241	0.05
50	5.14	32.89	5.72	26.01	30	6.36	32.81	25.80	221	0.07
75	4.52	32.96	5.77	26.14	50	5.14	32.89	26.01	201	0.12
100	4.10	33.08	6.16	26.27	75	4.52	32.96	26.14	189	0.16
125	3.91	33.13	5.90	26.33	100	4.10	33.08	26.27	177	0.21
150	3.73	33.18	5.90	26.39	150	3.73	33.18	26.39	166	0.30
175	3.57	33.23	5.97	26.44	200	3.43	33.27	26.49	157	0.38
200	3.43	33.27	6.08	26.49	250	3.39	33.36	26.57	149	0.46
225	3.31	33.30	5.91	26.52	300	3.67	33.55	26.69	138	0.53
250	3.39	33.36	5.45	26.57	400	3.78	33.87	26.93	116	0.66
300	3.67	33.55	3.84	26.69	500	3.58	34.01	27.06	105	0.77
388	3.78	33.84	2.25	26.91	600	3.38	34.00	27.07	104	0.87
485	3.61	34.00	1.37	27.05	700	3.21	34.05	27.13	99	0.98
582	3.41	34.00	1.14	27.07	800	3.07	34.14	27.21	92	1.07
776	3.11	34.11	0.81	27.19	1000	2.72	34.38	27.44	71	1.24
970	2.77	34.35	0.94	27.41	1200	2.45	34.51	27.56	60	1.37
1454	2.19	34.51	1.05	27.59	1500	2.15	34.52	27.60	57	1.55
1937	1.87	34.59	1.67	27.68						
23	CNAV WHITETHROAT; July 9, 1958; 1117 GCT; 55°52'N, 171°00'W; sounding, 1800 fm; wind, 270°, 10 kt; weather, overcast; sea, smooth.									
0	7.90	32.79	7.36	25.58	0	7.90	32.79	25.58	242	0.00
10	7.85	32.79	7.39	25.58	10	7.85	32.79	25.58	241	0.02
24	6.22	32.96	7.00	25.94	20	6.87	32.89	25.80	221	0.05
49	4.51	33.14	7.15	26.28	30	5.67	33.02	26.05	197	0.07
73	3.76	33.20	6.57	26.40	50	4.46	33.15	26.29	175	0.10
98	3.43	33.24	6.53	26.46	75	3.72	33.20	26.41	163	0.15
123	3.21	33.28	6.45	26.52	100	3.41	33.24	26.47	158	0.19
147	3.11	33.30	6.40	26.54	150	3.12	33.30	26.54	151	0.27
172	3.38	33.38	5.51	26.58	200	3.67	33.49	26.64	142	0.34
196	3.64	33.48	4.57	26.64	250	3.80	33.71	26.80	127	0.41
221	3.73	33.55	3.91	26.68	300	3.79	33.84	26.91	118	0.47
245	3.79	33.69	3.33	26.79	400	3.51	34.06	27.11	99	0.58
294	3.80	33.83	2.40	26.90	500	3.37	34.15	27.20	92	0.68
345	3.64	33.96	1.52	27.02	600	3.24	34.21	27.26	87	0.77
531	3.35	34.15	0.80	27.20	700	3.09	34.28	27.33	80	0.85
970	2.68	34.39	0.58	27.45	800	2.94	34.33	27.38	76	0.93
1413	2.52	34.42	0.65	27.49	1000	2.65	34.40	27.46	69	1.08
					1200	2.53	34.43	27.49	67	1.21
24	CNAV WHITETHROAT; July 10, 1958; 1925 GCT; 55°00'N, 171°00'W; sounding, 1800 fm; wind, 270°, 20 kt; weather, overcast; sea, rough.									
0	8.20	32.94	7.07	25.65	0	8.20	32.94	25.65	235	0.00
10	7.47	32.95	6.87	25.76	10	7.47	32.95	25.76	224	0.02
25	6.89	32.98	6.88	25.87	20	7.01	32.97	25.84	217	0.04
50	5.11	33.09	6.29	26.17	30	6.62	33.00	25.92	210	0.07
75	4.33	33.22	5.44	26.36	50	5.11	33.09	26.17	186	0.11
100	4.11	33.27	5.32	26.42	75	4.33	33.22	26.36	168	0.15
125	3.83	33.31	4.79	26.49	100	4.11	33.27	26.42	162	0.19
149	3.79	33.35	4.35	26.52	150	3.79	33.36	26.52	153	0.27
174	3.74	33.42	4.28	26.58	200	4.00	33.54	26.65	142	0.35
199	4.00	33.54	4.01	26.65	250	3.95	33.64	26.74	134	0.42
223	3.99	33.61	3.51	26.70	300	3.84	33.77	26.85	123	0.48
248	3.95	33.64	3.43	26.73	400	3.72	33.94	27.00	110	0.60
298	3.84	33.77	2.73	26.85	500	3.54	34.06	27.11	100	0.71
378	3.75	33.91	1.75	26.97	600	3.43	34.17	27.21	92	0.80
473	3.58	34.03	1.18	27.08	700	3.28	34.23	27.27	86	0.89
567	3.47	34.14	1.06	27.18	800	3.12	34.26	27.31	83	0.98
756	3.19	34.24	0.77	27.29	1000	2.83	34.35	27.41	74	1.14
945	2.91	34.33	0.72	27.38	1200	2.57	34.43	27.49	67	1.28
1418	2.30	34.49	0.90	27.56	1500	2.22	34.51	27.58	59	1.47
1890	1.92	34.59	1.42	27.67						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

25

CNAV WHITETHROAT; July 10, 1958; 0523 GCT; 53°53'N, 171°00'W; sounding, 1150 fm; wind, 320°, 10 kt; weather, overcast; sea, slight.

0	7.80	32.95	7.11	25.71	0	7.80	32.95	25.71	229	0.00
10	7.61	32.95	7.34	25.74	10	7.61	32.95	25.74	226	0.02
25	6.91	33.00	7.37	25.88	20	7.20	32.98	25.82	219	0.04
50	4.35	33.19	6.04	26.33	30	6.54	33.03	25.95	206	0.07
75	3.76	33.23	6.01	26.42	50	4.35	33.19	26.33	170	0.10
100	3.45	33.26	5.94	26.48	75	3.76	33.23	26.42	162	0.15
125	3.23	33.31	5.85	26.54	100	3.45	33.26	26.48	156	0.19
150	3.29	33.36	5.84	26.57	150	3.29	33.36	26.57	148	0.26
175	3.64	33.46	4.89	26.62	200	3.91	33.59	26.70	137	0.34
200	3.91	33.59	3.94	26.70	250	3.95	33.67	26.76	131	0.40
225	3.94	33.64	3.57	26.73	300	3.87	33.79	26.86	122	0.47
250	3.95	33.67	3.14	26.76	400	3.67	33.89	26.96	114	0.59
300	3.87	33.79	2.68	26.86	500	3.54	34.02	27.08	103	0.70
393	3.68	33.88	2.00	26.95	600	3.38	34.11	27.16	96	0.80
491	3.55	34.01	1.44	27.07	700	3.27	34.18	27.23	90	0.89
590	3.39	34.10	1.15	27.16	800	3.19	34.23	27.27	86	0.98
786	3.21	34.22	0.75	27.27	1000	2.92	34.32	27.37	78	1.14
982	2.95	34.31	0.59	27.37	1200	2.63	34.41	27.47	69	1.29
1473	2.19	34.50	0.87	27.58						

26

CNAV WHITETHROAT; July 10, 1958; 0930 GCT; 53°30'N, 171°00'W; sounding, missing; wind, missing; weather, partly cloudy; sea, moderate.

0	7.50	33.06	7.01	25.85	0	7.50	33.06	25.85	216	0.00
10	7.21	33.06	7.26	25.88	10	7.21	33.06	25.88	213	0.02
25	5.94	33.13	7.21	26.11	20	6.47	33.09	26.01	201	0.04
49	4.82	33.17	7.26	26.27	30	5.61	33.15	26.16	187	0.06
73	3.40	33.25	6.94	26.47	50	4.77	33.17	26.28	176	0.10
98	3.03	33.28	6.80	26.54	75	3.33	33.25	26.48	156	0.14
122	2.95	33.32	6.55	26.57	100	3.01	33.29	26.54	151	0.18
146	3.34	33.42	5.39	26.62	150	3.40	33.44	26.63	143	0.25
171	3.67	33.55	4.27	26.69	200	3.82	33.60	26.71	135	0.32
195	3.79	33.58	3.85	26.70	250	3.90	33.70	26.79	129	0.39
219	3.93	33.67	3.49	26.76	300	3.82	33.79	26.86	122	0.45
244	3.91	33.69	3.30	26.78	400	3.74	33.92	26.97	112	0.57
292	3.83	33.78	2.65	26.85	500	3.59	34.06	27.10	101	0.68
388	3.75	33.90	2.20	26.96	600	3.42	34.13	27.18	94	0.78
486	3.61	34.04	1.48	27.09	700	3.25	34.20	27.25	88	0.87
582	3.45	34.12	1.20	27.16	800	3.07	34.27	27.32	82	0.96
778	3.11	34.26	0.82	27.30	1000	2.77	34.37	27.42	72	1.11
974	2.81	34.36	0.94	27.41	1200	2.52	34.44	27.50	66	1.25
1460	2.26	34.50	1.13	27.57						

27

CNAV WHITETHROAT; July 10, 1958; 1520 GCT; 52°53'N, 171°40'W; sounding, 450 fm; wind, 180°, 12 kt; weather, shallow fog in patches; sea, calm.

0	4.80	33.46	4.93	26.50	0	4.80	33.46	26.50	154	0.00
10	4.77	33.49	4.61	26.53	10	4.77	33.49	26.53	152	0.02
25	4.68	33.51	4.28	26.55	20	4.72	33.50	26.54	150	0.03
50	4.65	33.52	4.20	26.56	30	4.66	33.51	26.56	149	0.05
75	4.57	33.53	3.99	26.58	50	4.65	33.52	26.56	149	0.08
100	4.57	33.54	3.96	26.59	75	4.57	33.53	26.58	147	0.11
125	4.51	33.54	3.93	26.60	100	4.57	33.54	26.59	147	0.15
150	4.50	33.54	3.88	26.60	150	4.50	33.54	26.60	146	0.22
175	4.49	33.56	3.77	26.61	200	4.49	33.57	26.62	144	0.30
200	4.49	33.57	3.68	26.62	250	4.43	33.59	26.64	143	0.37
225	4.45	33.57	3.64	26.63	300	4.36	33.64	26.69	139	0.44
250	4.43	33.59	2.81	26.64	400	4.06	33.77	26.82	127	0.57
391	4.11	33.74	1.87	26.80	500	3.36	34.12	27.17	94	0.68
488	3.41	34.09	0.80	27.15						
585	3.17	34.21	-	27.26						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
28	CNAV WHITETHROAT; July 10, 1958; 1919 GCT; 52°40'N, 172°25'W; sounding, 200 fm; wind, missing; weather, overcast; sea, missing.									
0	6.80	33.11	7.16	25.98	0	6.80	33.11	25.98	203	0.00
10	6.68	33.11	7.22	26.00	10	6.68	33.11	26.00	202	0.02
24	6.57	33.12	7.43	26.02	20	6.59	33.12	26.01	201	0.04
48	5.97	33.15	7.39	26.12	30	6.47	33.13	26.04	198	0.06
73	4.44	33.20	7.08	26.33	50	5.88	33.16	26.13	190	0.10
97	3.41	33.25	6.83	26.47	75	4.34	33.20	26.35	169	0.14
121	3.10	33.26	6.76	26.51	100	3.33	33.25	26.48	156	0.19
145	3.03	33.28	6.62	26.53	150	3.04	33.29	26.54	151	0.26
170	3.19	33.37	5.82	26.59	200	3.69	33.56	26.69	137	0.34
194	3.63	33.52	4.45	26.67	250	3.78	33.72	26.81	126	0.40
218	3.75	33.66	3.30	26.76						
242	3.77	33.71	2.92	26.80						
290	3.84	33.76	2.72	26.84						
29	CNAV WHITETHROAT; July 11, 1958; 0144 GCT; 52°27'N, 171°34'W; sounding, 285 fm; wind, missing; weather, overcast; sea, slight.									
0	7.80	32.31	7.06	25.22	0	7.80	32.31	25.22	276	0.00
9	6.24	32.78	6.13	25.79	10	6.11	32.82	25.84	217	0.02
23	5.22	33.03	4.93	26.11	20	5.29	33.02	26.10	192	0.04
46	5.05	33.35	4.11	26.39	30	4.97	33.13	26.22	181	0.06
69	5.11	33.43	4.37	26.44	50	5.04	33.38	26.41	163	0.10
91	4.93	33.50	3.07	26.52	75	5.08	33.45	26.46	159	0.14
113	4.83	33.52	3.53	26.55	100	4.88	33.52	26.54	152	0.18
136	4.80	33.53	3.46	26.55	150	4.79	33.53	26.56	150	0.25
158	4.79	33.54	3.52	26.56	200	4.46	33.60	26.65	142	0.33
180	4.67	33.57	3.51	26.60	250	4.20	33.66	26.72	135	0.40
203	4.42	33.60	3.51	26.66	300	4.05	33.74	26.80	128	0.46
225	4.31	33.63	3.10	26.68						
271	4.13	33.70	3.01	26.76						
360	3.98	33.79	3.21	26.85						
30	CNAV WHITETHROAT; July 11, 1958; 0521 GCT; 52°05'N, 171°04'W; sounding, missing; wind, 090°, 25 kt; weather, moderate rain; sea, moderate.									
0	8.00	32.10	7.06	25.02	0	8.00	32.10	25.02	295	0.00
10	7.97	32.21	6.73	25.11	10	7.97	32.21	25.11	286	0.03
24	7.97	32.21	6.43	25.11	20	7.96	32.23	25.13	285	0.06
48	7.79	32.55	6.00	25.40	30	7.95	32.26	25.15	283	0.09
72	5.51	32.71	5.69	25.82	50	7.68	32.57	25.43	256	0.14
95	5.07	32.98	5.33	26.09	75	5.36	32.74	25.87	215	0.20
119	4.62	33.22	4.91	26.33	100	4.98	33.03	26.14	189	0.25
142	5.03	33.49	3.61	26.50	150	5.08	33.57	26.55	151	0.34
166	5.05	33.69	2.93	26.66	200	4.89	33.78	26.75	133	0.41
190	4.93	33.75	2.73	26.71	250	4.48	33.92	26.90	119	0.47
213	4.85	33.84	2.21	26.80	300	4.24	34.00	26.99	110	0.53
237	4.59	33.89	1.89	26.86	400	3.98	34.08	27.08	103	0.64
285	4.31	33.98	1.30	26.96	500	3.78	34.14	27.15	96	0.74
395	3.99	34.07	0.81	27.07	600	3.58	34.21	27.22	91	0.83
494	3.79	34.14	0.52	27.15	700	3.40	34.26	27.28	85	0.92
988	2.90	34.38	0.11	27.42	800	3.22	34.31	27.33	81	1.00

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	σ_t g/L	δ cl/ton	ΔD dyn m

31

CNAV WHITETHROAT; July 11, 1958; 1454 GCT; 51°00'N, 171°00'W; sounding, 3750 fm; wind, calm; weather, fog; sea, calm.

0	7.50	32.60	6.94	25.49	0	7.50	32.60	25.49	250	0.00
10	7.55	32.61	7.01	25.48	10	7.55	32.61	25.48	251	0.02
25	6.85	32.64	7.02	25.60	20	7.19	32.63	25.55	245	0.05
50	4.95	32.79	6.78	25.96	30	6.54	32.66	25.66	234	0.07
75	4.30	33.03	5.84	26.21	50	4.95	32.79	25.96	206	0.12
100	4.17	33.46	3.76	26.56	75	4.30	33.03	26.21	182	0.17
125	4.11	33.58	2.98	26.67	100	4.17	33.46	26.56	149	0.21
150	4.33	33.78	2.02	26.81	150	4.33	33.78	26.81	126	0.28
175	4.26	33.86	1.56	26.87	200	4.21	33.91	26.92	116	0.34
200	4.21	33.91	1.18	26.92	250	4.00	34.01	27.02	107	0.40
225	4.13	34.02	0.83	27.01	300	3.89	34.07	27.08	101	0.45
250	4.00	34.01	0.69	27.02	400	3.71	34.18	27.19	92	0.54
300	3.89	34.07	0.57	27.08	500	3.44	34.25	27.27	85	0.64
398	3.71	34.18	0.47	27.19	600	3.20	34.31	27.34	79	0.72
498	3.45	34.25	0.41	27.27	700	2.99	34.36	27.40	74	0.80
597	3.21	34.31	0.39	27.34	800	2.80	34.40	27.45	69	0.87
796	2.81	34.40	0.45	27.45	1000	2.52	34.46	27.52	63	1.00
995	2.53	34.46	0.62	27.52	1200	2.29	34.51	27.58	58	1.12
1492	2.03	34.56	1.15	27.64	1500	2.02	34.56	27.64	53	1.29
1989	1.77	34.62	1.81	27.71						

32

CNAV WHITETHROAT; July 11, 1958; 2353 GCT; 50°00'N, 171°00'W; sounding, 2750 fm; wind, missing; weather, fog; sea, calm.

0	8.80	32.58	6.92	25.28	0	8.80	32.58	25.28	270	0.00
10	7.87	32.59	7.03	25.43	10	7.87	32.59	25.43	256	0.03
25	7.76	32.61	6.75	25.46	20	7.63	32.60	25.47	252	0.05
50	5.88	32.71	7.06	25.78	30	7.55	32.62	25.50	250	0.08
75	4.30	32.88	7.00	26.09	50	5.88	32.71	25.78	223	0.12
100	3.78	33.07	6.42	26.30	75	4.30	32.88	26.09	193	0.18
125	4.19	33.41	5.47	26.53	100	3.78	33.07	26.30	174	0.22
150	3.53	33.60	3.79	26.74	150	3.53	33.60	26.74	132	0.30
175	3.38	33.75	2.96	26.87	200	3.47	33.83	26.93	115	0.36
200	3.47	33.83	2.84	26.93	250	3.57	33.94	27.01	107	0.42
225	3.55	33.89	2.91	26.97	300	3.61	34.02	27.07	103	0.47
250	3.57	33.94	2.99	27.01	400	3.56	34.14	27.17	94	0.57
300	3.61	34.02	2.55	27.07	500	3.48	34.21	27.23	89	0.66
395	3.56	34.14	1.89	27.16	600	3.34	34.27	27.29	84	0.75
492	3.49	34.20	1.22	27.22	700	3.16	34.32	27.35	79	0.83
594	3.35	34.26	0.93	27.29	800	2.96	34.36	27.40	74	0.91
792	2.97	34.36	0.77	27.40	1000	2.65	34.42	27.47	68	1.05
992	2.66	34.42	0.43	27.47	1200	2.40	34.47	27.54	62	1.18
1490	2.15	34.54	1.03	27.61	1500	2.14	34.54	27.62	55	1.36
1988	1.85	34.60	1.79	27.69						

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CNAV WHITETHROAT; July 12, 1958; 1024 GCT; 50°30'N, 173°00'W; sounding, 3000 fm; wind, 290°, 20 kt; weather, partly cloudy; sea, slight.

0	8.00	32.62	6.89	25.43	0	8.00	32.62	25.43	256	0.00
10	7.78	32.60	7.11	25.45	10	7.78	32.60	25.45	254	0.03
24	7.59	32.62	7.29	25.49	20	7.63	32.61	25.47	252	0.05
48	4.37	33.01	7.34	26.19	30	7.13	32.68	25.59	240	0.08
73	4.05	33.32	6.60	26.47	50	4.23	33.04	26.23	180	0.12
96	4.39	33.54	6.01	26.61	75	4.06	33.34	26.48	156	0.16
120	4.28	33.60	4.89	26.66	100	4.40	33.56	26.63	143	0.20
144	4.26	33.68	3.28	26.74	150	4.24	33.71	26.76	131	0.27
167	4.18	33.79	3.23	26.83	200	4.12	33.89	26.91	117	0.33
191	4.15	33.86	2.02	26.89	250	3.99	34.00	27.02	107	0.39
215	4.06	33.93	1.95	26.95	300	3.87	34.07	27.09	101	0.44
239	4.01	33.98	1.79	27.00	400	3.73	34.15	27.16	95	0.54
286	3.90	34.06	1.56	27.07	500	3.58	34.20	27.22	90	0.63
384	3.75	34.13	1.22	27.15	600	3.41	34.25	27.27	85	0.72
480	3.61	34.19	0.96	27.21	700	3.24	34.30	27.33	81	0.80
575	3.45	34.24	0.58	27.26	800	3.07	34.35	27.38	76	0.88
767	3.12	34.33	0.48	27.36	1000	2.79	34.41	27.46	70	1.03
958	2.85	34.40	0.52	27.44	1200	2.51	34.47	27.53	64	1.16
1438	2.17	34.52	0.67	27.60	1500	2.11	34.53	27.61	56	1.35
1915	1.87	34.59	1.33	27.68						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
34	CNAV WHITETHROAT; July 12, 1958; 2340 GCT; 50°57'N, 174°53'W; sounding, 2600 fm; wind, 320°, 10 kt; weather, overcast; sea, slight.									
0	8.10	32.57	6.98	25.37	0	8.10	32.57	25.37	261	0.00
10	8.01	32.56	6.71	25.38	10	8.01	32.56	25.38	261	0.03
25	4.99	32.55	6.59	25.76	20	6.38	32.55	25.60	240	0.05
50	4.31	32.86	6.65	26.08	30	4.42	32.58	25.85	216	0.07
75	3.53	33.12	6.10	26.36	50	4.31	32.86	26.08	194	0.12
100	3.54	33.28	5.77	26.49	75	3.53	33.12	26.36	168	0.16
125	3.98	33.54	4.17	26.65	100	3.54	33.28	26.49	156	0.20
150	3.73	33.76	3.01	26.85	150	3.73	33.76	26.85	122	0.27
174	4.09	33.90	2.78	26.92	200	4.07	33.95	26.96	112	0.33
199	4.07	33.94	2.49	26.96	250	3.97	34.00	27.01	108	0.39
223	4.02	33.98	1.30	27.00	300	3.86	34.06	27.08	102	0.44
248	3.97	33.99	1.25	27.01	400	3.76	34.15	27.15	95	0.54
298	3.86	34.06	1.14	27.07	500	3.58	34.20	27.22	90	0.63
395	3.77	34.14	0.90	27.15	600	3.37	34.27	27.29	84	0.72
494	3.59	34.20	0.83	27.21	700	3.19	34.32	27.35	79	0.80
592	3.39	34.26	0.65	27.28	800	3.02	34.36	27.39	75	0.88
790	(3.04)a)	34.35	0.74	(27.39)	1000	2.73	34.43	27.48	68	1.02
988	2.75	34.42	0.90	27.47	1200	2.47	34.49	27.54	62	1.16
1482	2.15	34.54	1.33	27.61	1500	2.13	34.55	27.62	55	1.33
1976	1.85	34.61	1.34	27.70						
35	CNAV WHITETHROAT; July 13, 1958; 0508 GCT; 51°26'N, 175°00'W; sounding, 2500 fm; wind, 320°, 10 kt; weather, overcast; sea, slight.									
0	8.70	32.46	7.01	25.20	0	8.70	32.46	25.20	278	0.00
10	8.29	32.42	7.03	25.23	10	8.29	32.42	25.23	275	0.03
25	7.19	32.57	6.97	25.50	20	7.62	32.49	25.38	261	0.06
50	5.47	32.75	6.96	25.87	30	6.83	32.61	25.58	242	0.08
75	4.27	32.99	6.05	26.18	50	5.47	32.75	25.87	215	0.13
100	4.09	33.33	4.35	26.47	75	4.27	32.99	26.18	185	0.18
125	4.23	33.72	2.28	26.77	100	4.09	33.33	26.47	158	0.22
150	4.21	33.86	1.56	26.88	150	4.21	33.86	26.88	120	0.29
175	4.09	33.92	1.16	26.94	200	4.06	33.98	26.99	110	0.35
200	4.06	33.98	0.78	26.99	250	3.99	34.03	27.04	105	0.40
225	4.05	34.01	0.59	27.02	300	3.88	34.07	27.08	101	0.45
250	3.99	34.03	0.68	27.04	400	3.73	34.16	27.17	94	0.55
300	3.88	34.07	0.52	27.08	500	3.99	34.08	27.08	104	0.65
400	3.73	34.16	0.49	27.17	600	3.39	34.27	27.29	84	0.75
500	3.99	34.08	0.46	27.08	700	3.09	34.36	27.39	75	0.83
600	3.39	34.27	0.47	27.29	800	3.10	34.36	27.38	76	0.90
800	3.10	34.36	0.48	27.38	1000	2.71	34.42	27.47	68	1.05
1000	2.71	34.42	0.57	27.47	1200	2.42	34.47	27.54	62	1.18
1500	2.17	34.53	0.96	27.60	1500	2.17	34.53	27.60	57	1.36
2000	1.83	34.61	1.66	27.69	2000	1.83	34.61	27.69	49	1.63
36	CNAV WHITETHROAT; July 13, 1958; 0930 GCT; 51°40'N, 175°08'W; sounding, 220 fm; wind, 300°, 15 kt; weather, overcast; sea, missing.									
0	7.30	32.64	6.48	25.54	0	7.30	32.64	25.54	245	0.00
9	7.10	32.58	7.01	25.52	10	7.06	32.58	25.52	247	0.02
23	6.33	32.70	6.68	25.72	20	6.54	32.65	25.65	235	0.05
46	5.58	32.95	5.81	26.01	30	6.03	32.77	25.81	220	0.07
68	5.26	33.07	5.12	26.14	50	5.49	32.98	26.04	198	0.11
92	5.06	33.28	4.50	26.33	75	5.19	33.12	26.19	184	0.16
114	4.75	33.37	4.17	26.44	100	4.96	33.32	26.37	167	0.21
137	4.75	33.38	4.03	26.44	150	4.73	33.38	26.45	160	0.29
159	4.71	33.39	3.71	26.45	200	4.73	33.42	26.48	158	0.37
182	4.75	33.41	3.57	26.46	250	4.63	33.48	26.53	153	0.45
205	4.71	33.43	3.45	26.48						
227	4.66	33.45	3.30	26.51						
273	4.61	33.50	3.10	26.55						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	σ_t g/L	δ cl/ton	ΔD dyn m

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CNAV WHITETHROAT; July 13, 1958; 1417 GCT; 51°35'N, 176°00'W; sounding, 545 fm; wind, 180°, 20 kt; weather, squalls; sea, slight.

0	7.70	32.63	7.01	25.48	0	7.70	32.63	25.48	251	0.00
10	7.74	32.64	7.16	25.48	10	7.74	32.64	25.48	251	0.02
25	6.91	32.69	7.31	25.63	20	7.31	32.67	25.56	243	0.05
50	5.95	32.95	6.68	25.96	30	6.68	32.72	25.69	231	0.07
75	5.33	33.14	6.55	26.19	50	5.95	32.95	25.96	206	0.12
100	5.01	33.24	6.20	26.30	75	5.33	33.14	26.19	184	0.17
125	4.91	33.31	5.70	26.37	100	5.01	33.24	26.30	174	0.21
150	4.76	33.36	5.47	26.42	150	4.76	33.36	26.42	163	0.30
175	4.65	33.41	5.19	26.48	200	4.64	33.45	26.51	155	0.38
200	4.64	33.45	4.75	26.51	250	4.52	33.52	26.57	149	0.45
225	4.57	33.49	4.68	26.55	300	4.51	33.62	26.66	142	0.53
250	4.52	33.52	4.52	26.57	400	4.20	33.92	26.93	117	0.66
299	4.51	33.62	3.67	26.66	500	3.96	34.03	27.04	107	0.77
389	4.23	33.90	1.72	26.91	600	3.67	34.17	27.18	94	0.87
486	4.00	34.01	1.29	27.02	700	3.44	34.26	27.28	86	0.96
583	3.71	34.15	0.69	27.16						
778	3.31	34.31	0.54	27.32						

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CNAV WHITETHROAT; July 17, 1958; 0245 GCT; 52°14'N, 176°00'W; sounding, 1400 fm; wind, 090°, 20 kt; weather, cloudy; sea, slight.

0	7.50	33.16	-	25.92	0	7.50	33.16	25.92	209	0.00
10	7.47	33.15	7.12	25.92	10	7.47	33.15	25.92	209	0.02
25	7.12	33.15	7.24	25.97	20	7.28	33.15	25.95	207	0.04
49	5.91	33.18	7.25	26.15	30	6.93	33.15	26.00	202	0.06
73	4.15	33.19	7.24	26.36	50	5.85	33.18	26.15	188	0.10
98	3.23	33.21	7.20	26.46	75	4.04	33.19	26.37	167	0.15
123	3.05	33.24	6.91	26.50	100	3.19	33.21	26.46	158	0.19
147	2.93	33.23	6.80	26.50	150	2.92	33.23	26.50	155	0.27
172	2.83	33.28	6.81	26.55	200	3.00	33.35	26.59	147	0.34
196	2.95	33.33	6.32	26.58	250	3.84	33.61	26.72	135	0.41
221	3.39	33.44	5.05	26.63	300	3.83	33.76	26.84	124	0.48
245	3.79	33.58	3.88	26.70	400	3.69	33.98	27.03	107	0.60
294	3.83	33.74	2.63	26.82	500	3.53	34.08	27.13	99	0.70
400	3.69	33.98	1.34	27.03	600	3.35	34.17	27.22	90	0.80
500	3.53	34.08	0.92	27.13	700	3.18	34.24	27.29	84	0.88
600	3.35	34.17	0.68	27.22	800	3.02	34.29	27.34	80	0.97
800	3.02	34.29	0.56	27.34	1000	2.77	34.38	27.43	72	1.12
1000	2.77	34.38	0.56	27.43	1200	2.53	34.45	27.51	65	1.26
1500	2.18	34.53	0.91	27.60	1500	2.18	34.53	27.60	57	1.44
2000	1.89	34.59	1.32	27.67	2000	1.89	34.59	27.67	51	1.72

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CNAV WHITETHROAT; July 17, 1958; 0856 GCT; 52°23'N, 175°06'W; sounding, missing; wind, 010°, 25 kt; weather, overcast; sea, missing.

0	7.50	33.17	-	25.93	0	7.50	33.17	25.93	208	0.00
9	7.54	33.13	7.17	25.89	10	7.53	33.12	25.89	212	0.02
23	7.11	33.13	7.32	25.95	20	7.25	33.12	25.93	209	0.04
48	5.38	33.17	7.31	26.21	30	6.75	33.13	26.01	202	0.06
71	3.97	33.22	6.87	26.40	50	5.25	33.18	26.23	180	0.10
95	3.46	33.24	6.69	26.46	75	3.82	33.23	26.42	162	0.14
119	3.53	33.27	6.34	26.48	100	3.43	33.24	26.47	158	0.18
142	3.52	(33.30)a)	-	(26.50)	150	3.46	33.30	26.51	154	0.26
166	3.23	33.31	6.16	26.54	200	3.33	33.37	26.57	148	0.34
190	3.28	33.35	5.95	26.56	250	3.60	33.50	26.66	141	0.41
213	3.43	33.39	5.35	26.59	300	3.84	33.72	26.81	127	0.48
236	3.53	33.45	4.85	26.63	400	3.76	33.92	26.97	112	0.60
284	3.79	33.67	3.73	26.77	500	3.53	34.04	27.09	102	0.71
362	3.83	33.86	2.34	26.92	600	3.38	34.14	27.19	93	0.81
442	3.62	33.97	1.42	27.03	700	3.21	34.21	27.26	87	0.90
520	3.51	34.06	1.23	27.11	800	3.05	34.27	27.32	82	0.98
678	3.25	34.20	0.94	27.24	1000	2.74	34.36	27.42	73	1.14
836	2.99	34.29	0.87	27.34	1200	2.47	34.42	27.49	67	1.28
1234	2.43	34.42	0.95	27.50	1500	2.17	34.49	27.57	60	1.47
1628	2.07	34.51	-	27.60						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
40	CNAV WHITETHROAT; July 17, 1958; 1633 GCT; 53°00'N, 175°03'W; sounding, 2000 fm; wind, 090°, 30 kt; weather, overcast; sea, slight.									
0	7.40	33.13	-	25.92	0	7.40	33.13	25.92	210	0.00
10	7.50	33.09	6.75	25.87	10	7.50	33.09	25.87	214	0.02
24	7.41	33.09	7.16	25.88	20	7.46	33.08	25.87	214	0.04
47	5.53	33.16	7.21	26.18	30	7.13	33.10	25.93	209	0.06
71	4.05	33.17	6.89	26.35	50	5.32	33.16	26.21	183	0.10
94	3.53	33.21	6.78	26.43	75	3.90	33.18	26.37	167	0.15
117	3.53	33.26	6.63	26.47	100	3.48	33.22	26.45	160	0.19
140	3.35	33.28	6.46	26.50	150	3.16	33.27	26.52	153	0.27
163	2.81	33.26	6.17	26.54	200	3.40	33.40	26.60	146	0.34
187	3.19	33.34	5.96	26.57	250	3.91	33.65	26.74	133	0.41
210	3.57	33.46	4.60	26.63	300	3.85	33.78	26.85	123	0.48
234	3.83	33.58	3.63	26.70	400	3.71	33.93	26.99	111	0.60
280	3.85	33.73	2.78	26.81	500	3.55	34.03	27.09	102	0.70
397	3.71	33.92	1.55	26.98	600	3.40	34.13	27.17	95	0.80
497	3.55	34.03	1.00	27.08	700	3.28	34.20	27.24	89	0.90
596	3.41	34.12	0.81	27.17	800	3.17	34.24	27.28	85	0.98
795	3.18	34.24	0.65	27.28	1000	2.87	34.33	27.38	77	1.15
994	2.88	34.32	0.65	27.38	1200	2.61	34.40	27.46	70	1.30
1491	2.31	34.47	0.78	27.55						
41	CNAV WHITETHROAT; July 18, 1958; 2349 GCT; 55°02'N, 175°00'W; sounding, missing; wind, 360°, 10 kt; weather, cloudy; sea, slight.									
0	7.70	33.32	-	26.02	0	7.70	33.32	26.02	200	0.00
10	7.51	33.14	6.98	25.90	10	7.51	33.14	25.90	211	0.02
25	7.40	33.13	7.02	25.92	20	7.41	33.10	25.89	213	0.04
50	5.35	33.15	7.30	26.19	30	7.18	33.14	25.95	207	0.06
75	3.36	33.21	7.09	26.44	50	5.35	33.15	26.19	184	0.10
100	3.18	33.24	7.00	26.49	75	3.36	33.21	26.44	160	0.15
125	2.97	33.27	6.74	26.53	100	3.18	33.24	26.49	156	0.18
150	3.07	33.34	5.98	26.58	150	3.07	33.34	26.58	148	0.26
175	3.55	33.47	4.69	26.63	200	3.78	33.61	26.73	134	0.33
200	3.78	33.61	3.49	26.73	250	3.86	33.75	26.83	125	0.40
225	3.87	33.71	2.80	26.79	300	3.77	33.85	26.92	117	0.46
250	3.86	33.75	2.28	26.83	400	3.59	33.97	27.03	107	0.57
300	3.77	33.85	1.96	26.92	500	3.53	34.07	27.11	100	0.68
395	3.60	33.97	1.33	27.03	600	3.40	34.14	27.18	94	0.77
493	3.54	34.06	0.91	27.11	700	3.25	34.20	27.25	88	0.87
592	3.41	34.13	0.75	27.18	800	3.09	34.26	27.31	83	0.95
788	3.11	34.25	0.66	27.30	1000	2.83	34.33	27.39	76	1.11
984	2.85	34.33	0.55	27.38	1200	2.58	34.40	27.46	69	1.26
1478	2.25	34.48	0.82	27.55	1500	2.23	34.48	27.56	61	1.46
1970	1.87	34.56	1.29	27.65						
42	CNAV WHITETHROAT; July 19, 1958; 0956 GCT; 56°01'N, 175°00'W; sounding, 2000 fm; wind, 360°, 10 kt; weather, overcast; sea, missing.									
0	8.80	32.90	-	25.53	0	8.80	32.90	25.53	247	0.00
10	8.06	32.76	7.28	25.53	10	8.06	32.76	25.53	246	0.02
25	6.33	32.73	7.38	25.74	20	6.99	32.72	25.65	236	0.05
50	4.32	32.93	7.53	26.13	30	5.84	32.75	25.82	219	0.07
75	3.81	33.01	7.37	26.25	50	4.32	32.93	26.13	190	0.11
100	3.73	33.05	7.31	26.28	75	3.81	33.01	26.25	178	0.16
125	3.61	33.11	6.50	26.34	100	3.73	33.05	26.28	176	0.20
150	3.44	33.19	6.53	26.42	150	3.44	33.19	26.42	162	0.29
175	3.24	33.19	6.76	26.44	200	3.13	33.22	26.47	158	0.37
200	3.13	33.22	6.74	26.47	250	3.06	33.28	26.53	153	0.45
225	3.02	33.27	6.70	26.52	300	3.61	33.46	26.63	144	0.52
250	3.06	33.28	6.40	26.53	400	3.87	33.77	26.84	125	0.66
300	3.61	33.46	4.48	26.63	500	3.68	33.93	26.99	111	0.78
362	3.85	33.67	3.05	26.77	600	3.52	34.02	27.08	104	0.89
452	3.75	33.88	2.02	26.94	700	3.35	34.14	27.19	94	0.99
532	3.63	33.95	1.49	27.01	800	3.18	34.22	27.27	87	1.08
722	3.31	34.16	0.77	27.21	1000	2.86	34.31	27.37	78	1.24
902	3.01	34.26	0.63	27.32	1200	2.60	34.39	27.45	71	1.40
1352	2.43	34.43	0.68	27.50	1500	2.26	34.48	27.56	61	1.60
1800	1.94	34.56	1.11	27.64						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

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CNAV WHITETHROAT; July 19, 1958; 2113 GCT; 56°00'N, 177°44'W; sounding, 2000 fm; wind, 300°, 5 kt; weather, overcast; sea, calm.

0	8.40	33.12	-	25.76	0	8.40	33.12	25.76	224	0.00
10	8.01	33.08	7.11	25.79	10	8.01	33.08	25.79	222	0.02
25	6.60	33.12	7.38	26.01	20	7.18	33.10	25.92	210	0.04
50	3.94	33.19	7.69	26.38	30	6.10	33.13	26.09	194	0.06
75	2.95	33.22	7.37	26.49	50	3.94	33.19	26.38	166	0.10
100	2.76	33.21	7.31	26.50	75	2.95	33.22	26.49	155	0.14
125	2.68	33.24	6.94	26.53	100	2.76	33.21	26.50	155	0.18
150	2.68	33.30	6.70	26.58	150	2.68	33.30	26.58	147	0.26
175	3.31	33.45	4.87	26.64	200	3.81	33.60	26.71	135	0.33
200	3.81	33.60	3.44	26.71	250	3.82	33.75	26.83	124	0.39
225	3.83	33.69	2.79	26.79	300	3.70	33.83	26.91	118	0.45
250	3.82	33.75	2.45	26.83	400	3.55	33.99	27.05	105	0.57
300	3.70	33.83	1.93	26.91	500	3.41	34.07	27.13	98	0.67
400	3.55	33.99	1.20	27.05	600	3.27	34.15	27.20	92	0.76
500	3.41	34.07	0.96	27.13	700	3.15	34.22	27.27	86	0.85
600	3.27	34.15	0.76	27.20	800	3.05	34.28	27.33	81	0.94
800	3.05	34.28	0.59	27.33	1000	2.78	34.35	27.41	74	1.10
1000	2.78	34.35	0.41	27.41						

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CNAV WHITETHROAT; July 20, 1958; 0858 GCT; 56°00'N, 179°45'E; sounding, 2000 fm; wind, 260°, 5 kt; weather, overcast; sea, missing.

0	8.20	33.15	-	25.81	0	8.20	33.15	25.81	220	0.00
10	7.88	33.16	6.24	25.87	10	7.88	33.16	25.87	214	0.02
25	6.13	33.17	6.72	26.12	20	6.88	33.17	26.02	200	0.04
50	3.45	33.23	6.76	26.45	30	5.57	33.18	26.19	184	0.06
75	2.60	33.22	7.21	26.53	50	3.45	33.23	26.45	159	0.10
100	2.33	33.22	7.27	26.55	75	2.60	33.22	26.53	152	0.14
125	2.19	33.23	7.09	26.56	100	2.33	33.22	26.55	150	0.17
150	2.12	33.29	6.65	26.61	150	2.12	33.29	26.61	144	0.25
175	3.13	33.54	6.40	26.73	200	3.65	33.74	26.84	123	0.32
200	3.65	33.74	4.17	26.84	250	3.63	33.84	26.92	116	0.38
225	3.65	33.80	3.90	26.89	300	3.61	33.93	27.00	109	0.43
250	3.63	33.84	3.71	26.92	400	3.54	34.04	27.09	101	0.54
300	3.61	33.93	3.23	27.00	500	3.47	34.13	27.17	94	0.64
396	3.54	34.04	2.37	27.09	600	3.28	34.19	27.24	89	0.73
495	3.48	34.13	1.96	27.17	700	3.15	34.25	27.29	84	0.82
594	3.29	34.19	1.67	27.23	800	3.08	34.31	27.35	79	0.90
794	3.09	34.30	1.40	27.34	1000	2.81	34.38	27.43	72	1.05
982	2.83	34.37	0.71	27.42	1200	2.57	34.44	27.49	67	1.19
1489	2.31	34.50	1.28	27.57	1500	2.30	34.50	27.57	60	1.38
1985	1.91	34.58	1.38	27.67						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
45	CNAV WHITETHROAT; July 20, 1958; 1753 GCT; 55°00'N, 179°29'E; sounding, 2000+ fm; wind, calm; weather, overcast; sea, calm.									
0	8.40	33.19	-	25.81	0	8.40	33.19	25.81	219	0.00
10	7.57	33.12	7.22	25.89	10	7.57	33.12	25.89	213	0.02
25	6.45	33.13	7.38	26.04	20	6.81	33.12	25.98	203	0.04
50	3.35	33.20	7.45	26.44	30	5.95	33.14	26.11	191	0.06
75	2.87	33.21	7.50	26.49	50	3.35	33.20	26.44	160	0.10
100	2.71	33.22	7.47	26.51	75	2.87	33.21	26.49	155	0.14
125	2.50	33.24	7.37	26.54	100	2.71	33.22	26.51	154	0.18
150	2.51	33.27	7.00	26.57	150	2.51	33.27	26.57	148	0.25
175	3.39	33.47	4.79	26.65	200	3.82	33.61	26.72	135	0.32
200	3.82	33.61	3.48	26.72	250	3.77	33.74	26.83	125	0.39
225	3.83	33.67	3.05	26.77	300	3.67	33.83	26.91	117	0.45
250	3.77	33.74	2.56	26.83	400	3.59	33.99	27.05	105	0.56
300	3.67	33.83	2.00	26.91	500	3.50	34.10	27.15	97	0.66
400	3.59	33.99	1.40	27.05	600	3.36	34.17	27.21	91	0.76
500	3.50	34.10	0.97	27.15	700	3.22	34.22	27.27	86	0.85
600	3.36	34.17	0.73	27.21	800	3.09	34.28	27.32	82	0.93
800	3.09	34.28	0.59	27.32	1000	2.78	34.37	27.42	73	1.09
1000	2.78	34.37	0.58	27.42	1200	2.53	34.44	27.50	66	1.23
1500	2.27	(34.52)a)	0.85	(27.59)	1500	2.27	34.52	27.59	58	1.42
2000	1.88	34.58	1.32	27.67	2000	1.88	34.58	27.67	51	1.70
46	CNAV WHITETHROAT; July 21, 1958; 0011 GCT; 54°29'N, 179°23'E; sounding, 500 fm; wind, calm; weather, overcast; sea, missing.									
0	9.40	33.18	-	25.65	0	9.40	33.18	25.65	234	0.00
10	7.81	33.16	7.12	25.88	10	7.81	33.16	25.88	213	0.02
25	6.63	33.17	7.31	26.05	20	6.86	33.16	26.01	201	0.04
50	4.65	33.20	7.59	26.31	30	6.24	33.17	26.10	192	0.06
75	3.27	33.22	7.32	26.46	50	4.65	33.20	26.31	173	0.10
100	3.13	33.25	7.13	26.50	75	3.27	33.22	26.46	158	0.14
125	3.13	33.34	6.12	26.58	100	3.13	33.25	26.50	154	0.18
150	3.35	33.48	4.83	26.67	150	3.35	33.48	26.67	139	0.26
175	3.76	33.68	3.39	26.78	200	3.77	33.72	26.82	126	0.32
200	3.77	33.72	3.02	26.82	250	3.81	33.86	26.92	116	0.38
225	3.83	33.80	2.14	26.87	300	3.73	33.93	26.98	111	0.44
250	3.81	33.86	1.85	26.92	400	3.58	34.04	27.09	102	0.55
300	3.73	33.93	1.36	26.98	500	3.47	34.13	27.17	94	0.65
400	3.58	34.04	1.12	27.09	600	3.37	34.19	27.23	90	0.74
500	3.47	34.13	0.69	27.17	700	3.26	34.24	27.28	86	0.83
600	3.37	34.19	0.60	27.23	800	3.14	34.28	27.32	82	0.91
800	3.14	34.28	0.56	27.32						
47	CNAV WHITETHROAT; July 21, 1958; 0405 GCT; 54°00'N, 179°16'E; sounding, 1000 fm; wind, calm; weather, overcast; sea, calm.									
0	8.40	33.20	7.34	25.82	0	8.40	33.20	25.82	219	0.00
10	7.55	33.14	7.29	25.90	10	7.55	33.14	25.90	211	0.02
25	6.69	33.16	7.02	26.03	20	6.92	33.14	25.99	203	0.04
50	5.03	33.19	6.81	26.26	30	6.38	33.16	26.07	195	0.06
75	3.69	33.25	6.54	26.45	50	5.03	33.19	26.26	178	0.10
100	3.23	33.28	5.81	26.52	75	3.69	33.25	26.45	160	0.14
125	3.31	33.36	5.23	26.57	100	3.23	33.28	26.52	153	0.18
150	3.33	33.43	4.19	26.63	150	3.33	33.43	26.63	143	0.26
175	3.59	33.55	3.18	26.70	200	3.77	33.66	26.77	130	0.32
200	3.77	33.66	2.61	26.77	250	3.77	33.83	26.90	118	0.39
225	3.80	33.75	1.98	26.83	300	3.70	33.92	26.98	111	0.44
250	3.77	33.83	1.60	26.90	400	3.67	34.06	27.10	101	0.55
300	3.70	33.92	0.77	26.98	500	3.51	34.13	27.16	95	0.65
400	3.67	34.06	0.71	27.10	600	3.39	34.19	27.22	90	0.74
500	3.51	34.13	0.59	27.16	700	3.26	34.24	27.28	85	0.83
600	3.39	34.19	0.52	27.22	800	3.11	34.28	27.33	81	0.92
800	3.11	34.28	0.58	27.33	1000	2.87	34.36	27.40	75	1.08
1000	2.87	34.36	0.53	27.40	1200	2.62	34.40	27.46	70	1.22
1600	2.11	(34.40)b)	-	(27.50)	1500	2.24	34.41	27.50	66	1.43

a) Value interpolated by three-point parabolic method.

b) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

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CNAV WHITETHROAT; July 21, 1958; 1133 GCT; 53°03'N, 179°04'E; sounding, 1600 fm; wind, 270°, 5 kt; weather, overcast; sea, missing.

0	8.10	33.16	-	25.83	0	8.10	33.16	25.83	217	0.00
10	7.45	33.14	7.01	25.92	10	7.45	33.14	25.92	210	0.02
25	6.77	33.16	7.15	26.02	20	6.96	33.15	25.99	203	0.04
49	4.28	33.21	7.13	26.36	30	6.39	33.17	26.08	194	0.06
73	3.63	33.24	7.01	26.45	50	4.22	33.21	26.37	167	0.10
97	3.25	33.27	6.76	26.50	75	3.59	33.24	26.45	159	0.14
122	2.61	33.26	6.56	26.55	100	3.19	33.27	26.51	154	0.18
147	3.01	33.40	5.44	26.63	150	3.06	33.42	26.64	141	0.25
171	3.37	33.53	4.18	26.71	200	3.83	33.77	26.85	123	0.32
195	3.79	33.74	2.60	26.83	250	3.78	33.87	26.93	115	0.38
220	3.79	33.82	2.13	26.89	300	3.72	33.99	27.03	106	0.44
244	3.78	33.86	1.81	26.92	400	3.49	34.10	27.15	96	0.54
292	3.73	33.97	1.12	27.02	500	3.37	34.17	27.21	90	0.63
397	3.50	34.10	0.91	27.14	600	3.28	34.22	27.26	86	0.72
497	3.37	34.17	0.77	27.21	700	3.13	34.27	27.32	82	0.80
596	3.28	34.22	0.65	27.26	800	2.92	34.33	27.38	76	0.88
795	2.93	34.33	0.55	27.38	1000	2.67	34.40	27.46	69	1.03
995	2.68	34.40	0.60	27.46	1200	2.45	34.46	27.53	63	1.16
1492	2.17	34.53	0.95	27.60	1500	2.16	34.53	27.60	57	1.35
1990	1.83	34.59	1.42	27.68						

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CNAV WHITETHROAT; July 21, 1958; 2000 GCT; 52°00'N, 178°51'E; sounding, 455 fm; wind, 320°, 5 kt; weather, overcast; sea, calm.

0	6.30	33.20	-	26.11	0	6.30	33.20	26.11	191	0.00
10	6.21	33.16	6.65	26.09	10	6.21	33.16	26.09	193	0.02
25	6.07	33.16	6.61	26.11	20	6.12	33.15	26.10	192	0.04
50	5.21	33.25	5.79	26.29	30	5.96	33.17	26.14	189	0.06
75	5.02	33.24	5.57	26.30	50	5.21	33.25	26.29	174	0.10
99	4.85	33.30	5.33	26.37	75	5.02	33.24	26.30	174	0.14
124	4.82	33.32	5.30	26.38	100	4.85	33.30	26.37	167	0.18
149	4.72	33.33	5.23	26.40	150	4.71	33.33	26.40	164	0.26
173	4.57	33.35	5.19	26.43	200	4.52	33.39	26.47	159	0.35
198	4.53	33.38	5.06	26.47	250	3.93	33.38	26.53	153	0.42
223	4.43	33.40	4.98	26.49	300	3.99	33.58	26.68	140	0.50
248	3.95	33.38	4.37	26.53	400	3.78	33.89	26.95	114	0.63
297	3.99	33.56	3.84	26.67	500	3.50	34.06	27.11	100	0.74
397	3.79	33.89	1.84	26.94						
496	3.51	34.06	1.21	27.11						
596	3.35	34.13	1.04	27.18						

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CNAV WHITETHROAT; July 22, 1958; 0146 GCT; 51°33'N, 179°46'E; sounding, 250 fm; wind, calm; weather, partly cloudy; sea, calm.

0	7.80	33.15	-	25.87	0	7.80	33.15	25.87	214	0.00
10	7.32	33.13	6.92	25.92	10	7.32	33.13	25.92	209	0.02
25	(7.04)a)	33.13	6.93	(25.96)	20	7.08	33.12	25.95	206	0.04
50	6.32	33.15	6.99	26.07	30	6.92	33.13	25.98	204	0.06
75	5.27	33.21	6.32	26.25	50	6.32	33.15	26.07	195	0.10
100	4.05	33.29	5.91	26.45	75	5.27	33.21	26.25	178	0.15
125	3.96	33.33	5.72	26.48	100	4.05	33.29	26.45	160	0.19
150	3.58	33.35	5.85	26.54	150	3.58	33.35	26.54	151	0.27
175	3.87	33.42	5.82	26.56	200	4.13	33.65	26.72	135	0.34
200	4.13	33.65	3.27	26.72	250	3.91	33.79	26.86	122	0.41
225	4.06	33.70	3.04	26.77	300	3.68	33.93	26.99	110	0.47
250	3.91	33.79	2.58	26.86	400	3.46	34.06	27.11	99	0.57
300	3.68	33.93	1.92	26.99						
400	3.46	34.06	1.19	27.11						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
51	CNAV WHITETHROAT; July 22, 1958; 0500 GCT; 51°32'N, 179°27'W; sounding, 250 fm; wind, calm; weather, partly cloudy; sea, calm.									
0	8.50	32.81	6.84	25.51	0	8.50	32.81	25.51	248	0.00
10	7.55	32.79	6.98	25.63	10	7.55	32.79	25.63	237	0.02
24	6.97	32.80	7.00	25.72	20	7.05	32.80	25.70	230	0.05
48	6.15	32.92	6.78	25.92	30	6.74	32.82	25.76	225	0.07
72	6.05	33.07	6.50	26.05	50	6.11	32.93	25.93	209	0.11
96	5.61	33.18	6.32	26.19	75	6.01	33.09	26.06	197	0.17
120	5.19	33.24	5.84	26.28	100	5.54	33.19	26.20	183	0.21
143	4.84	33.40	4.30	26.45	150	4.73	33.44	26.49	156	0.30
167	4.46	33.53	3.90	26.59	200	4.23	33.65	26.71	136	0.37
190	4.35	33.61	3.26	26.67	250	3.88	33.86	26.91	117	0.44
213	4.00	33.68	3.20	26.76						
227	3.95	33.77	2.61	26.84						
285	3.81	33.87	2.08	26.93						
52	CNAV WHITETHROAT; July 22, 1958; 0915 GCT; 51°09'N, 179°29'W; sounding, 1600 fm; wind, missing; weather, cloudy; sea, missing.									
0	8.40	32.64	-	25.39	0	8.40	32.64	25.39	260	0.00
10	6.67	32.79	6.96	25.75	10	6.67	32.79	25.75	226	0.02
25	5.41	33.19	5.98	26.22	20	5.65	33.03	26.07	196	0.05
50	4.97	33.28	5.31	26.34	30	5.16	33.27	26.31	173	0.06
75	4.81	33.33	5.14	26.40	50	4.97	33.28	26.34	170	0.10
100	4.75	33.34	5.12	26.41	75	4.81	33.33	26.40	164	0.14
125	4.73	33.37	4.80	26.44	100	4.75	33.34	26.41	163	0.18
150	4.65	33.42	4.58	26.49	150	4.65	33.42	26.49	157	0.26
175	4.53	33.44	4.46	26.52	200	4.47	33.47	26.54	152	0.34
199	4.47	33.47	4.28	26.54	250	4.42	33.54	26.61	146	0.42
224	4.41	33.51	4.08	26.58	300	4.39	33.65	26.70	138	0.49
249	4.42	33.54	3.88	26.61	400	4.12	33.91	26.93	117	0.62
298	4.39	33.65	3.30	26.70	500	3.70	34.00	27.05	106	0.73
397	4.13	33.90	1.65	26.92	600	3.54	34.10	27.14	98	0.83
496	3.71	34.00	1.34	27.04	700	3.37	34.20	27.23	90	0.93
595	3.55	(34.10)a)	-	(27.14)	800	3.19	34.28	27.32	82	1.01
794	3.20	34.28	0.65	27.31	1000	2.83	34.38	27.42	73	1.17
992	2.84	34.37	0.71	27.42	1200	2.53	34.45	27.51	65	1.31
1485	2.23	34.51	1.21	27.58	1500	2.22	34.51	27.59	58	1.50
1980	1.86	34.59	1.59	27.68						
53	CNAV WHITETHROAT; July 22, 1958; 1700 GCT; 51°05'N, 179°39'E; sounding, 1500 fm; wind, 220°, 20 kt; weather, overcast; sea, slight.									
0	8.20	32.70	-	25.46	0	8.20	32.70	25.46	253	0.00
10	8.25	32.65	7.04	25.42	10	8.25	32.65	25.42	257	0.03
24	7.69	32.70	7.07	25.54	20	7.92	32.68	25.48	251	0.05
48	5.37	32.87	7.30	25.97	30	7.27	32.74	25.62	238	0.08
71	4.20	32.97	7.07	26.18	50	5.23	32.88	26.00	202	0.12
94	3.59	33.06	6.93	26.30	75	4.05	32.99	26.21	182	0.17
117	3.41	33.28	5.73	26.50	100	3.50	33.10	26.35	169	0.21
140	3.47	33.46	4.54	26.64	150	3.49	33.58	26.73	133	0.29
163	3.51	33.76	3.88	26.87	200	3.70	33.85	26.92	116	0.35
186	3.63	33.81	2.30	26.90	250	3.65	33.91	26.98	110	0.41
210	3.75	33.88	1.70	26.94	300	3.71	34.00	27.04	105	0.46
233	3.67	33.89	1.84	26.96	400	3.74	34.10	27.12	99	0.57
280	3.70	33.97	1.31	27.02	500	3.59	34.17	27.19	93	0.66
382	3.75	34.08	0.84	27.10	600	3.38	34.22	27.25	87	0.75
477	3.63	34.15	1.00	27.17	700	3.27	34.26	27.29	84	0.84
572	3.43	34.21	0.85	27.24	800	3.20	34.29	27.32	82	0.92
764	3.24	34.28	0.90	27.31	1000	2.90	34.37	27.41	74	1.08
980	2.93	34.36	0.76	27.40	1200	2.63	34.45	27.50	66	1.22
1472	2.29	(34.57)b)	-	(27.62)						

a) Value interpolated by three-point parabolic method.

b) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

54

CNAV WHITETHROAT; July 23, 1958; 0632 GCT; 50°36'N, 179°30'E; sounding, 2900 fm; wind, 200°, 10 kt; weather, overcast; sea, slight.

0	8.40	32.66	-	25.40	0	8.40	32.66	25.40	258	0.00
10	7.95	32.69	6.84	25.49	10	7.95	32.69	25.49	250	0.03
24	7.95	32.69	6.99	25.49	20	7.87	32.69	25.50	249	0.05
48	5.55	32.83	7.19	25.91	30	7.63	32.71	25.55	245	0.08
71	4.01	33.05	6.65	26.26	50	5.39	32.84	25.95	207	0.12
94	3.29	33.20	6.14	26.45	75	3.83	33.08	26.30	173	0.17
116	3.85	33.51	4.05	26.64	100	3.32	33.27	26.50	155	0.21
140	4.11	33.66	3.05	26.73	150	4.09	33.70	26.77	130	0.28
163	3.94	33.74	2.58	26.82	200	3.74	33.92	26.97	111	0.34
186	3.83	33.86	1.59	26.92	250	3.66	34.01	27.06	103	0.40
209	3.68	33.95	1.34	27.01						
232	3.67	33.99	1.05	27.04						
278	3.65	34.03	0.80	27.07						

55

CNAV WHITETHROAT; July 23, 1958; 1545 GCT; 50°00'N, 178°57'E; sounding, 2500 fm; wind, 270°, 10 kt; weather, overcast; sea, moderate.

0	8.30	32.96	-	25.65	0	8.30	32.96	25.65	234	0.00
10	8.12	32.94	7.08	25.66	10	8.12	32.94	25.66	234	0.02
25	6.80	32.99	7.22	25.89	20	7.38	32.96	25.79	222	0.05
50	4.49	33.07	7.50	26.22	30	6.35	33.01	25.96	206	0.07
75	3.91	33.06	7.32	26.28	50	4.49	33.07	26.22	181	0.11
100	3.11	33.13	7.17	26.41	75	3.91	33.06	26.28	176	0.15
125	3.01	33.39	5.38	26.63	100	3.11	33.13	26.41	163	0.19
150	3.05	33.66	3.74	26.84	150	3.05	33.66	26.84	123	0.27
175	3.11	33.76	2.83	26.91	200	3.21	33.81	26.94	114	0.33
200	3.21	33.81	2.62	26.94	250	3.31	33.89	27.00	109	0.38
225	3.27	33.85	2.32	26.97	300	3.36	33.96	27.04	105	0.44
250	3.31	33.89	2.14	27.00	400	3.41	34.09	27.14	96	0.54
300	3.36	33.96	1.74	27.04	500	3.39	34.18	27.21	90	0.63
387	3.41	34.08	1.27	27.13	600	3.25	34.24	27.28	85	0.72
485	3.40	34.16	1.15	27.20	700	3.11	34.29	27.33	80	0.80
583	3.27	34.23	0.75	27.27	800	2.97	34.33	27.37	77	0.88
778	3.00	34.32	0.87	27.36	1000	2.68	34.40	27.46	69	1.03
978	2.71	34.39	0.94	27.45	1200	2.44	34.46	27.52	64	1.16
1454	2.21	34.51	1.36	27.58	1500	2.17	34.52	27.59	58	1.35
1945	1.91	34.58	1.85	27.66						

56

CNAV WHITETHROAT; July 24, 1958; 0630 GCT; 50°00'N, 176°00'E; sounding, 2500 fm; wind, 040°, 10 kt; weather, overcast; sea, slight.

0	8.50	32.75	-	25.46	0	8.50	32.75	25.46	253	0.00
10	8.33	32.74	6.90	25.47	10	8.33	32.74	25.47	252	0.02
25	8.05	32.77	7.01	25.54	20	8.15	32.75	25.51	248	0.05
49	5.09	32.95	7.31	26.06	30	7.69	32.79	25.61	239	0.08
73	4.01	32.98	7.28	26.20	50	5.01	32.95	26.08	195	0.12
98	3.42	33.14	6.34	26.38	75	3.94	32.99	26.21	182	0.17
122	3.73	33.55	3.51	26.68	100	3.41	33.16	26.40	164	0.21
147	3.85	33.83	1.85	26.89	150	3.85	33.84	26.91	117	0.28
171	3.70	33.88	1.38	26.95	200	3.83	33.94	26.99	110	0.34
196	3.82	33.94	1.28	26.98	250	3.81	34.03	27.06	103	0.39
221	3.81	33.98	0.67	27.02	300	3.68	34.07	27.10	100	0.44
245	3.81	34.02	0.59	27.05	400	3.66	34.11	27.13	97	0.54
294	3.69	34.07	0.52	27.10	500	3.50	34.19	27.22	90	0.64
356	3.69	34.08	0.53	27.11	600	3.29	34.26	27.29	83	0.72
452	3.59	34.15	0.55	27.18	700	3.10	34.31	27.35	78	0.81
528	3.43	34.22	0.57	27.24	800	2.95	34.35	27.39	75	0.88
718	3.07	34.32	0.60	27.36	1000	2.69	34.40	27.46	69	1.03
908	2.81	34.38	0.73	27.43	1200	2.42	34.46	27.53	63	1.16
1384	2.17	34.52	1.00	27.59	1500	2.06	34.54	27.62	55	1.34
1860	1.85	34.58	1.68	27.67						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
57	CNAV WHITETHROAT; July 24, 1958; 1544 GCT; 51°00'N, 176°00'E; sounding, 3000 fm; wind, 140°, 10 kt; weather, overcast; sea, missing.									
0	8.20	32.76	7.06	25.51	0	8.20	32.76	25.51	248	0.00
10	8.08	32.74	(7.11)a)	25.51	10	8.08	32.74	25.51	248	0.02
24	7.59	32.83	7.16	25.65	20	7.71	32.81	25.62	238	0.05
48	4.92	32.91	6.91	26.05	30	6.78	32.85	25.78	223	0.07
72	3.91	33.08	6.19	26.29	50	4.82	32.93	26.08	194	0.12
97	3.64	33.29	5.39	26.49	75	3.87	33.11	26.32	172	0.16
121	3.95	33.58	3.49	26.69	100	3.68	33.33	26.51	154	0.20
144	4.08	33.73	2.73	26.79	125	3.97	33.61	26.70	136	0.24
169	4.12	33.80	2.41	26.76	150	4.09	33.75	26.80	127	0.27
192	4.03	33.85	(2.15)a)	26.89	175	4.10	33.81	26.86	121	0.30
216	3.93	33.88	1.90	26.93	200	4.00	33.86	26.90	118	0.33
240	3.86	33.91	1.52	26.96	250	3.82	33.93	26.97	112	0.39
288	3.69	33.98	1.49	27.03	300	3.68	34.00	27.04	105	0.44
392	3.59	34.10	1.08	27.13	400	3.58	34.11	27.14	96	0.55
490	3.43	34.18	0.93	27.21	500	3.42	34.19	27.22	90	0.64
588	3.36	34.24	0.86	27.27	600	3.33	34.25	27.28	84	0.73
785	2.97	34.33	1.01	27.38	700	3.12	34.29	27.33	80	0.81
981	2.74	34.40	0.62	27.45	800	2.95	34.34	27.38	76	0.89
1474	2.11	34.54	1.36	27.62	1000	2.71	34.41	27.46	69	1.04
1964	1.81	34.59	2.04	27.68	1200	2.43	34.47	27.53	63	1.17
					1500	2.09	34.54	27.62	55	1.35
58	CNAV WHITETHROAT; July 24, 1958; 2240 GCT; 51°29'N, 176°00'E; sounding, 1150 fm; wind, 100°, 15 kt; weather, overcast; sea, missing.									
0	7.30	32.93	-	25.77	0	7.30	32.93	25.77	223	0.00
9	7.13	32.95	6.93	25.81	10	7.11	32.95	25.81	219	0.02
23	6.99	33.00	6.94	25.87	20	7.01	32.99	25.86	216	0.04
46	5.30	33.18	6.15	26.22	30	6.67	33.04	25.95	207	0.06
69	4.93	33.23	6.06	26.30	50	5.14	33.20	26.25	178	0.10
92	4.69	33.27	5.80	26.36	75	4.85	33.24	26.32	172	0.15
114	4.33	33.27	5.67	26.40	100	4.57	33.27	26.37	167	0.19
136	4.56	33.35	4.83	26.44	150	4.56	33.37	26.45	160	0.27
159	4.49	33.37	4.73	26.46	200	4.33	33.43	26.53	153	0.35
181	4.37	33.40	4.74	26.50	250	4.16	33.53	26.62	145	0.43
204	4.33	33.44	4.50	26.53	300	4.11	33.63	26.71	137	0.50
227	4.24	33.49	4.23	26.58	400	4.04	33.86	26.90	120	0.63
273	4.10	33.56	3.74	26.65	500	3.83	33.98	27.02	109	0.74
319	4.16	33.69	2.86	26.75	600	3.67	34.09	27.12	100	0.85
414	3.99	33.88	1.76	26.92	700	3.56	34.18	27.20	93	0.95
510	3.81	33.99	1.05	27.03	800	3.37	34.25	27.28	86	1.04
700	3.56	34.18	0.56	27.20	1000	2.96	34.36	27.40	75	1.20
890	3.17	34.30	-	27.33	1200	2.61	34.44	27.50	66	1.34
1342	2.38	34.49	0.83	27.55						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

59

CNAV WHITETHROAT; July 27, 1958; 0458 GCT; 50°18'N, 171°32'E; sounding, missing; wind, 300°, 20 kt; weather, overcast; sea, moderate.

0	8.50	32.81	-	25.50	0	8.50	32.81	25.50	249	0.00
10	8.15	32.77	6.90	25.52	10	8.15	32.77	25.52	247	0.02
24	8.17	32.76	6.98	25.52	20	8.10	32.76	25.52	247	0.05
48	6.19	32.83	7.35	25.84	30	7.91	32.77	25.56	244	0.08
72	4.00	32.99	6.96	26.21	50	6.02	32.84	25.87	215	0.12
96	3.39	33.11	6.45	26.37	75	3.84	33.01	26.24	179	0.17
119	3.65	33.43	5.19	26.60	100	3.38	33.15	26.40	164	0.21
144	4.03	33.70	3.21	26.78	150	4.03	33.75	26.81	126	0.29
167	3.86	33.82	2.00	26.88	200	3.86	33.89	26.94	114	0.35
190	3.87	33.88	1.41	26.93	250	3.83	33.96	27.00	109	0.40
214	3.82	33.91	0.99	26.96	300	3.78	34.04	27.06	103	0.46
238	3.83	33.94	1.03	26.99	400	3.64	34.11	27.14	97	0.56
286	3.80	34.02	1.09	27.05	500	3.47	34.19	27.21	90	0.65
343	3.71	34.07	1.00	27.10	600	3.29	34.24	27.28	85	0.74
424	3.62	34.13	0.96	27.15	700	3.16	34.28	27.32	81	0.82
512	3.44	34.19	0.88	27.22	800	3.04	34.31	27.35	79	0.90
748	3.11	34.29	0.87	27.33	1000	2.77	34.37	27.43	72	1.06
935	2.86	34.35	0.84	27.40	1200	2.50	34.43	27.50	66	1.20
1402	2.22	34.48	1.19	27.56						

60

CNAV WHITETHROAT; July 27, 1958; 2034 GCT; 51°34'N, 170°00'E; sounding, 2500 fm; wind, 040°, 20 kt; weather, overcast; sea, moderate.

0	8.40	32.84	-	25.54	0	8.40	32.84	25.54	245	0.00
10	7.95	32.84	6.88	25.61	10	7.95	32.84	25.61	239	0.02
23	7.95	32.84	6.93	25.61	20	7.89	32.84	25.62	238	0.05
46	7.87	33.08	6.96	25.80	30	7.94	32.88	25.64	236	0.07
67	4.61	33.20	6.79	26.31	50	7.48	33.11	25.88	213	0.12
92	3.90	33.36	6.17	26.51	75	4.01	33.25	26.42	163	0.16
113	3.85	33.60	4.86	26.71	100	3.82	33.44	26.58	147	0.20
136	4.04	33.74	3.32	26.80	150	4.11	33.79	26.84	123	0.27
159	4.13	33.82	2.36	26.86	200	3.95	33.92	26.95	113	0.33
181	4.05	33.87	1.83	26.91	250	3.84	34.04	27.06	103	0.39
204	3.93	33.93	1.33	26.96	300	3.78	34.18	27.18	92	0.44
226	3.87	33.95	1.00	26.99	400	3.63	34.22	27.23	88	0.53
254	3.84	34.06	0.84	27.07	500	3.52	34.12	27.15	96	0.62
337	3.71	(34.23)a)	0.54	(27.22)	600	3.38	34.11	27.16	96	0.72
446	3.59	34.14	0.46	27.17	700	3.23	34.15	27.21	92	0.81
895	2.87	34.35	0.47	27.40	800	3.05	34.23	27.29	85	0.90
1340	2.20	34.49	1.04	27.57	1000	2.71	34.39	27.45	70	1.06
					1200	2.41	34.45	27.52	64	1.19

61

CNAV WHITETHROAT; July 28, 1958; 0753 GCT; 52°30'N, 169°23'E; sounding, 2800 fm; wind, 340°, 15 kt; weather, cloudy; sea, calm.

0	8.20	32.99	-	25.69	0	8.20	32.99	25.69	231	0.00
10	7.67	32.99	7.15	25.76	10	7.67	32.99	25.76	224	0.02
24	7.53	33.00	7.10	25.79	20	7.50	32.99	25.79	222	0.04
48	3.47	33.11	7.22	26.36	30	6.97	33.01	25.88	213	0.07
73	2.47	33.09	7.59	26.43	50	3.27	33.11	26.38	166	0.10
97	2.03	33.17	7.25	26.53	75	2.41	33.09	26.43	161	0.15
121	2.49	33.44	4.93	26.71	100	2.04	33.19	26.54	150	0.19
146	3.22	33.71	2.52	26.86	150	3.29	33.74	26.88	119	0.25
170	3.41	33.83	1.53	26.94	200	3.49	33.88	26.97	111	0.31
195	3.48	33.87	1.21	26.96	250	3.51	33.96	27.03	105	0.37
219	3.50	33.92	1.09	27.00	300	3.46	34.03	27.09	100	0.42
243	3.51	33.95	0.84	27.03	400	3.41	34.12	27.17	94	0.52
292	3.47	34.02	0.73	27.08	500	3.33	34.19	27.23	88	0.61
376	3.42	34.10	0.56	27.15	600	3.18	34.24	27.28	84	0.70
474	3.36	34.17	0.65	27.22	700	3.03	34.29	27.34	80	0.78
572	3.22	34.23	0.59	27.27	800	2.88	34.33	27.38	75	0.86
769	2.92	34.32	0.56	27.37						
966	2.65	34.39	0.63	27.45						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
62	CNAV WHITETHROAT; July 28, 1958; 1530 GCT; 52°45'N, 171°11'E; sounding, 3600 fm; wind, 040°, 6 kt; weather, missing; sea, calm.									
0	8.50	33.03	-	25.68	0	8.50	33.03	25.68	232	0.00
10	8.01	32.89	6.79	25.64	10	8.01	32.89	25.64	236	0.02
24	7.68	32.94	6.83	25.73	20	7.73	32.90	25.69	232	0.05
49	4.11	33.06	7.21	26.25	30	7.17	32.97	25.82	219	0.07
73	3.33	33.16	6.84	26.41	50	4.03	33.06	26.27	177	0.11
98	3.21	33.35	5.78	26.58	75	3.29	33.17	26.42	162	0.15
122	2.87	33.36	5.45	26.61	100	3.19	33.36	26.58	147	0.19
147	3.13	33.61	3.29	26.79	150	3.18	33.64	26.80	126	0.26
171	3.65	33.79	1.87	26.88	200	3.55	33.86	26.95	113	0.32
196	3.55	33.85	1.41	26.94	250	3.64	33.95	27.01	108	0.38
220	3.64	33.91	1.11	26.97	300	3.63	34.01	27.06	103	0.43
245	3.64	33.94	0.94	27.00	400	3.40	34.07	27.13	97	0.53
294	3.64	34.01	0.65	27.05	500	3.49	34.18	27.20	91	0.63
355	3.39	34.03	0.81	27.10	600	3.20	34.22	27.27	86	0.72
447	3.58	34.14	0.71	27.17	700	3.08	34.27	27.32	82	0.80
539	3.32	34.19	0.56	27.23	800	2.97	34.31	27.36	78	0.88
723	3.07	34.28	0.56	27.33	1000	2.73	34.38	27.44	71	1.03
909	2.84	34.35	0.57	27.40	1200	2.48	34.43	27.50	66	1.17
1370	2.26	34.47	0.87	27.55						
63	CNAV WHITETHROAT; July 29, 1958; 0104 GCT; 52°59'N, 172°17'E; sounding, 145 fm; wind, 270°, 15 kt; weather, cloudy; sea, smooth.									
0	8.20	32.95	7.16	25.66	0	8.20	32.95	25.66	234	0.00
10	8.00	32.92	7.06	25.66	10	8.00	32.92	25.66	234	0.02
24	7.88	32.92	7.08	25.68	20	7.90	32.91	25.67	233	0.05
47	5.63	33.01	7.34	26.05	30	7.54	32.93	25.74	227	0.07
70	3.93	33.10	7.17	26.31	50	5.38	33.02	26.09	194	0.11
92	3.15	33.10	7.43	26.38	75	3.68	33.11	26.34	170	0.16
115	3.15	33.20	6.89	26.46	100	3.06	33.12	26.41	164	0.20
137	3.17	33.25	6.47	26.50	150	3.28	33.32	26.54	151	0.28
160	3.41	33.39	5.87	26.58	200	3.67	33.68	26.79	128	0.35
182	3.58	33.57	3.86	26.71						
205	3.69	33.70	2.79	26.81						
228	3.78	33.83	1.96	26.90						
64	CNAV WHITETHROAT; July 29, 1958; 0315 GCT; 53°20'N, 172°42'E; sounding, 2100 fm; wind, 320°, 20 kt; weather, cloudy; sea, moderate.									
0	8.30	32.96	-	25.65	0	8.30	32.96	25.65	234	0.00
10	8.11	32.86	7.00	25.60	10	8.11	32.86	25.60	240	0.02
24	7.91	32.91	7.02	25.67	20	7.96	32.87	25.63	237	0.05
48	5.18	33.00	7.17	26.09	30	7.51	32.93	25.74	226	0.07
72	4.02	33.10	6.89	26.30	50	5.02	33.01	26.12	191	0.11
95	3.71	33.23	6.36	26.43	75	3.94	33.12	26.32	172	0.16
119	3.77	33.38	4.96	26.54	100	3.69	33.26	26.46	159	0.20
143	3.50	33.55	3.90	26.71	150	3.55	33.61	26.75	132	0.27
167	3.92	33.75	2.26	26.82	200	3.87	33.83	26.89	118	0.34
190	3.91	33.81	1.94	26.88	250	3.51	33.89	26.97	111	0.40
213	3.80	33.85	1.68	26.91	300	3.74	33.99	27.03	106	0.45
237	3.55	33.87	1.55	26.95	400	3.65	34.04	27.08	102	0.55
285	3.72	33.97	0.95	27.02	500	3.58	34.08	27.12	99	0.66
367	3.67	34.03	0.84	27.07	600	3.48	34.16	27.20	93	0.75
458	3.61	34.05	0.84	27.09	700	3.35	34.22	27.26	88	0.84
551	3.53	34.13	0.85	27.16	800	3.23	34.27	27.30	84	0.93
741	3.29	34.24	0.72	27.28	1000	3.02	34.32	27.36	79	1.10
937	3.10	34.30	0.57	27.34	1200	2.74	34.39	27.44	72	1.25
1430	2.32	34.47	0.96	27.54						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

CNAV WHITETHROAT; July 29, 1958; 1230 GCT; 53°47'N, 171°13'E; sounding, 1700 fm; wind, 270°, 20 kt; weather, overcast; sea, slight. 65

0	8.0	32.98	-
10	7.89	32.94	6.92
25	7.89	32.93	6.97
49	3.53	33.09	7.50
73	3.04	33.14	7.18
98	2.32	33.19	7.37
122	1.39	33.21	7.38
147	2.17	33.44	5.11
171	3.01	33.63	3.29
196	3.51	33.78	2.60
220	3.61	33.86	1.49
245	3.65	33.90	1.30
294	3.55	33.97	0.93
366	3.56	34.08	0.60
460	3.46	34.16	0.54
556	3.33	34.22	0.48
745	2.97	34.30	0.46
934	2.75	34.37	0.53
1406	2.17	34.50	0.90

CNAV WHITETHROAT; July 30, 1958; 2325 GCT; 54°10'N, 170°04'E; sounding, missing; wind, 280°, 10 kt; weather, overcast; sea, missing. 66

0	7.70	32.99	-	25.76	0	7.70	32.99	25.76	224	0.00
10	7.38	32.96	7.30	25.79	10	7.38	32.96	25.79	222	0.02
25	7.37	32.98	7.40	25.80	20	7.31	32.97	25.80	221	0.04
49	2.49	33.15	8.01	26.48	30	6.85	33.00	25.89	213	0.07
73	1.48	33.16	7.72	26.56	50	2.37	33.16	26.49	155	0.10
97	1.21	33.18	7.81	26.60	75	1.43	33.16	26.56	148	0.14
121	0.96	33.19	7.69	26.62	100	1.18	33.19	26.60	145	0.18
146	0.69	33.19	7.62	26.64	150	0.72	33.20	26.64	141	0.25
170	1.19	33.28	6.78	26.68	200	3.26	33.69	26.84	123	0.32
194	3.03	33.64	3.30	26.82	250	3.66	33.89	26.96	112	0.38
218	3.41	33.75	2.33	26.87	300	3.54	33.95	27.02	107	0.43
242	3.63	33.86	1.59	26.94	400	3.54	34.09	27.13	98	0.54
290	3.55	33.93	1.40	27.01	500	3.45	34.17	27.20	91	0.63
384	3.55	34.07	0.68	27.11	600	3.17	34.23	27.28	85	0.72
480	3.49	34.16	0.66	27.19	700	3.01	34.28	27.33	80	0.80
577	3.22	34.22	0.49	27.26	800	2.92	34.32	27.37	77	0.88
770	2.96	34.31	0.40	27.36	1000	2.66	34.41	27.46	69	1.03
962	2.71	34.39	0.53	27.45	1200	2.43	34.47	27.53	63	1.16
1446	2.17	34.51	0.91	27.58						

CNAV WHITETHROAT; July 30, 1958; 0330 GCT; 54°10'N, 172°00'E; sounding, 2100 fm; wind, 270°, 15 kt; weather, overcast; sea, slight. 67

0	8.00	33.05	6.84	25.76	0	8.00	33.05	25.76	224	0.00
10	7.77	33.00	6.93	25.76	10	7.77	33.00	25.76	224	0.02
25	7.77	33.00	6.87	25.76	20	7.72	32.99	25.76	225	0.04
50	3.61	33.12	7.12	26.36	30	7.35	33.01	25.83	218	0.07
74	3.11	33.15	7.27	26.43	50	3.61	33.12	26.36	168	0.11
98	2.77	33.22	7.07	26.51	75	3.09	33.15	26.43	161	0.15
123	2.74	33.31	6.43	26.58	100	2.76	33.22	26.51	153	0.19
148	2.21	33.36	6.16	26.67	150	2.24	33.38	26.68	138	0.26
172	3.21	33.66	3.32	26.82	200	3.62	33.82	26.91	117	0.32
197	3.59	33.81	2.15	26.90	250	3.73	33.92	26.98	110	0.38
222	3.73	33.88	1.77	26.95	300	3.67	34.01	27.06	104	0.44
246	3.73	33.92	1.44	26.98	400	3.55	34.11	27.15	96	0.54
296	3.68	34.01	0.93	27.05	500	3.49	34.17	27.20	92	0.63
329	3.63	34.04	0.90	27.08	600	3.37	34.22	27.25	87	0.72
417	3.53	34.12	0.72	27.16	700	3.19	34.28	27.32	82	0.81
503	3.49	34.17	0.62	27.20	800	3.07	34.32	27.36	78	0.89
677	3.22	34.27	0.57	27.30	1000	2.84	34.38	27.43	72	1.04
855	3.02	34.34	0.73	27.38	1200	2.57	34.44	27.50	66	1.18
1293	2.43	34.46	0.97	27.52						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
68	CNAV WHITETHROAT; July 30, 1958; 1430 GCT; 54°00'N, 174°02'E; sounding, missing; wind, 270°, 15 kt; weather, overcast; sea, missing.									
0	7.90	33.11	-	25.83	0	7.90	33.11	25.83	218	0.00
10	7.61	33.00	7.03	25.78	10	7.61	33.00	25.78	222	0.02
25	7.61	33.00	7.09	25.78	20	7.55	32.98	25.77	223	0.04
49	4.51	33.14	6.69	26.28	30	7.28	33.02	25.84	217	0.07
73	4.01	33.27	6.08	26.43	50	4.44	33.15	26.29	174	0.11
97	3.71	33.30	5.91	26.49	75	3.98	33.27	26.44	161	0.15
121	3.69	33.40	5.24	26.57	100	3.69	33.31	26.49	155	0.19
146	3.80	33.52	4.27	26.65	150	3.82	33.54	26.67	140	0.26
171	3.91	33.61	2.92	26.72	200	3.97	33.73	26.80	127	0.33
195	3.96	33.71	1.76	26.79	250	3.90	33.88	26.93	115	0.39
219	3.97	33.80	-	26.86	300	3.78	33.96	27.00	109	0.45
243	3.92	33.87	1.53	26.92	400	3.62	34.05	27.09	101	0.55
292	3.80	33.95	1.46	26.99	500	3.49	34.12	27.16	96	0.65
364	3.67	34.02	1.23	27.06	600	3.35	34.17	27.21	91	0.75
454	3.55	34.09	0.92	27.13	700	3.18	34.24	27.29	84	0.84
544	3.43	34.14	0.66	27.18	800	3.04	34.30	27.35	79	0.92
724	3.14	34.27	0.65	27.31	1000	2.80	34.38	27.43	72	1.07
906	2.92	34.34	0.64	27.39	1200	2.55	34.44	27.50	66	1.21
1363	2.34	34.47	0.82	27.54						
69	CNAV WHITETHROAT; July 30, 1958; 2131 GCT; 53°23'N, 174°16'E; sounding, 1750 fm; wind, 270°, 20 kt; weather, missing; sea, missing.									
0	7.80	33.01	-	25.76	0	7.80	33.01	25.76	224	0.00
10	7.63	33.00	7.06	25.78	10	7.63	33.00	25.78	223	0.02
25	7.65	32.98	6.98	25.77	20	7.61	32.99	25.77	223	0.04
50	5.15	33.11	7.02	26.18	30	7.40	33.00	25.81	220	0.07
75	4.39	33.16	6.79	26.31	50	5.15	33.11	26.18	185	0.11
100	4.02	33.25	6.06	26.41	75	4.39	33.16	26.31	173	0.15
125	3.81	33.34	5.53	26.51	100	4.02	33.25	26.41	163	0.20
150	3.87	33.45	5.03	26.59	150	3.87	33.45	26.59	146	0.27
175	3.87	33.56	3.92	26.67	200	3.93	33.68	26.76	131	0.34
200	3.93	33.68	3.12	26.76	250	3.91	33.80	26.87	121	0.41
225	3.93	33.75	2.63	26.82	300	3.84	33.90	26.95	114	0.47
250	3.91	33.80	2.28	26.87	400	3.64	34.07	27.10	100	0.57
300	3.84	(33.90)a)	1.48	(26.95)	500	3.52	34.14	27.17	94	0.67
371	3.69	34.03	1.05	27.07	600	3.33	34.19	27.23	90	0.76
468	3.57	34.11	0.71	27.15	700	3.19	34.24	27.28	85	0.85
566	3.39	34.17	0.56	27.21	800	3.07	34.29	27.33	80	0.94
762	3.12	34.27	0.55	27.32	1000	2.84	34.36	27.41	74	1.09
958	2.89	34.35	0.58	27.40	1200	2.60	34.43	27.48	68	1.24
1451	2.29	34.49	0.88	27.56						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

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CNAV WHITETHROAT; July 31, 1958; 0700 GCT; 52°46'N, 174°41'E; sounding, 1900 fm; wind, 140°, 25 kt; weather, overcast; sea, missing.

0	7.80	33.04	-	25.79	0	7.80	33.04	25.79	222	0.00
10	7.82	33.00	7.03	25.75	10	7.82	33.00	25.75	226	0.02
25	7.21	32.99	7.11	25.83	20	7.50	32.99	25.79	222	0.04
50	4.63	33.10	6.97	26.23	30	6.85	33.00	25.89	213	0.07
75	4.11	33.26	5.96	26.41	50	4.63	33.10	26.23	180	0.11
99	3.87	33.31	5.68	26.48	75	4.11	33.26	26.41	163	0.15
124	3.81	33.37	5.21	26.53	100	3.86	33.32	26.48	156	0.19
148	3.93	33.46	4.49	26.59	150	3.93	33.47	26.60	146	0.27
173	3.85	33.53	4.08	26.66	200	3.95	33.65	26.74	133	0.34
198	3.95	33.64	3.49	26.73	250	3.87	33.71	26.80	128	0.40
223	3.91	33.68	3.25	26.77	300	3.77	33.86	26.93	116	0.46
248	3.87	33.71	2.87	26.80	400	3.66	34.05	27.09	101	0.57
298	3.77	33.86	2.09	26.92	500	3.61	34.08	27.12	100	0.67
389	3.67	34.04	1.92	27.08	600	3.50	34.13	27.17	95	0.77
486	3.62	34.07	1.38	27.11	700	3.37	34.19	27.22	90	0.87
584	3.52	34.12	0.73	27.16	800	3.21	34.24	27.28	85	0.96
783	3.23	34.23	0.65	27.28	1000	2.92	34.32	27.37	78	1.12
981	2.95	34.31	0.81	27.36	1200	2.66	34.39	27.45	71	1.27
1478	2.32	34.47	0.95	27.54						

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CNAV WHITETHROAT; July 31, 1958; 1100 GCT; 52°18'N, 174°56'E; sounding, 750 fm; wind, 140°, 15 kt; weather, moderate rain; sea, slight.

0	7.90	32.76	-	25.56	0	7.90	32.76	25.56	244	0.00
10	7.59	32.83	6.96	25.65	10	7.59	32.83	25.65	235	0.02
24	7.55	32.86	7.08	25.68	20	7.51	32.86	25.68	232	0.05
48	5.53	33.10	6.35	26.13	30	7.28	32.89	25.75	226	0.07
72	5.05	33.19	5.80	26.26	50	5.43	33.11	26.15	188	0.11
96	4.79	33.23	5.79	26.32	75	5.01	33.20	26.27	176	0.16
121	4.62	33.28	5.49	26.38	100	4.76	33.24	26.33	171	0.20
144	4.51	33.30	5.23	26.40	150	4.49	33.32	26.42	163	0.29
168	4.42	33.43	4.98	26.52	200	4.26	33.55	26.63	143	0.36
192	4.29	33.54	4.46	26.62	250	4.16	33.70	26.76	132	0.43
219	4.23	33.57	4.03	26.65	300	3.97	33.88	26.92	117	0.50
240	4.19	33.66	3.56	26.72	400	3.79	34.03	27.06	104	0.61
288	4.01	33.84	2.53	26.89						
385	3.81	34.02	1.39	27.05						
480	3.72	34.10	0.96	27.12						

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CNAV WHITETHROAT; July 31, 1958; 1830 GCT; 51°45'N, 174°58'E; sounding, 1500 fm; wind, 220°, 20 kt; weather, overcast; sea, moderate.

0	8.00	32.98	-	25.71	0	8.00	32.98	25.71	229	0.00
10	7.55	32.99	6.90	25.79	10	7.55	32.99	25.79	222	0.02
24	7.53	32.99	6.96	25.79	20	7.46	33.00	25.80	221	0.04
48	5.94	33.15	6.36	26.12	30	7.32	33.01	25.84	218	0.07
73	4.92	33.28	5.71	26.35	50	5.83	33.16	26.14	188	0.11
97	4.68	33.33	5.43	26.41	75	4.87	33.29	26.36	168	0.15
121	4.74	33.37	5.36	26.43	100	4.67	33.33	26.41	163	0.20
145	4.61	33.38	5.22	26.46	150	4.59	33.38	26.46	159	0.28
169	4.50	33.41	4.91	26.49	200	4.41	33.46	26.54	152	0.35
193	4.42	33.45	4.68	26.53	250	4.26	33.52	26.61	146	0.43
217	4.41	33.47	4.52	26.55	300	4.09	33.63	26.71	137	0.50
241	4.30	33.51	4.33	26.59	400	3.92	33.89	26.93	116	0.63
290	4.12	33.61	3.64	26.69	500	3.80	34.12	27.13	99	0.74
428	3.91	33.98	1.37	27.00	600	3.64	34.26	27.25	87	0.83
810	3.31	34.33	0.55	27.34	700	3.49	34.33	27.33	81	0.92
					800	3.33	34.33	27.34	80	1.00

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
73	CNAV WHITETHROAT; August 1, 1958; 0200 GCT; 52°31'N, 175°35'E; sounding, 1400 fm; wind, 220°, 20 kt; weather, fog; sea, slight.									
0	8.10	33.03	-	25.74	0	8.10	33.03	25.74	226	0.00
10	7.87	33.02	6.91	25.76	10	7.87	33.02	25.76	224	0.02
25	(6.70)a)	33.03	7.04	(25.93)	20	7.20	33.02	25.86	216	0.04
49	5.07	33.09	7.49	26.18	30	6.34	33.04	25.98	204	0.07
74	3.67	33.13	7.39	26.36	50	5.01	33.09	26.18	185	0.10
98	3.18	33.20	7.47	26.45	75	3.63	33.13	26.36	168	0.15
123	3.20	33.29	6.00	26.52	100	3.16	33.20	26.46	158	0.19
147	3.15	33.35	5.68	26.58	150	3.16	33.36	26.58	147	0.27
172	3.27	33.43	5.03	26.63	200	3.78	33.67	26.77	130	0.34
196	3.73	33.64	3.71	26.76	250	3.94	33.82	26.87	121	0.40
220	3.90	33.78	2.69	26.85	300	3.82	33.85	26.91	117	0.46
245	3.94	33.81	2.37	26.87	400	3.86	34.02	27.04	106	0.57
294	3.83	33.85	1.71	26.91	500	3.68	34.09	27.12	99	0.68
389	3.87	34.00	0.84	27.03	600	3.46	34.15	27.19	93	0.77
486	3.71	34.08	0.62	27.11	700	3.29	34.21	27.25	88	0.87
584	3.49	34.14	0.56	27.18	800	3.17	34.25	27.29	84	0.95
778	3.20	34.24	0.54	27.28	1000	2.89	34.34	27.39	76	1.12
972	2.93	34.33	0.53	27.37	1200	2.63	34.41	27.47	69	1.26
1458	2.32	34.48	0.76	27.55						
74	CNAV WHITETHROAT; August 1, 1958; 1015 GCT; 52°36'N, 176°58'E; sounding, 2100 fm; wind, 180°, 15 kt; weather, overcast; sea, missing.									
0	8.20	33.09	-	25.77	0	8.20	33.09	25.77	224	0.00
10	7.71	33.06	7.08	25.82	10	7.71	33.06	25.82	219	0.02
24	(6.88)a)	33.07	6.97	(25.94)	20	7.14	33.06	25.90	212	0.04
48	5.23	33.18	7.36	26.23	30	6.50	33.09	26.00	202	0.06
73	3.20	33.20	7.45	26.46	50	5.08	33.18	26.25	178	0.10
97	2.91	33.22	7.16	26.49	75	3.11	33.21	26.47	158	0.14
121	2.73	33.26	7.02	26.54	100	2.88	33.22	26.50	155	0.18
145	2.99	33.42	6.05	26.65	150	3.08	33.46	26.67	139	0.26
170	3.55	33.62	3.83	26.75	200	3.81	33.77	26.85	123	0.32
194	3.78	33.74	2.76	26.83	250	3.89	33.89	26.94	115	0.38
217	3.85	33.81	2.23	26.88	300	3.68	33.94	27.00	109	0.44
242	3.90	33.88	1.75	26.93	400	3.63	34.07	27.11	100	0.55
290	3.71	33.93	1.33	26.99	500	3.51	34.14	27.18	94	0.64
378	3.65	34.05	0.95	27.09	600	3.43	34.20	27.23	90	0.74
471	3.54	34.12	0.85	27.16	700	3.29	34.25	27.28	85	0.82
566	3.47	34.18	0.84	27.21	800	3.13	34.30	27.34	80	0.91
758	3.19	34.28	0.85	27.32	1000	2.84	34.37	27.42	73	1.06
951	2.91	34.35	0.60	27.40	1200	2.58	34.44	27.49	67	1.20
1432	2.29	34.50	0.91	27.57						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

75

CNAV WHITETHROAT; August 1, 1958; 1545 GCT; 52°33'N, 177°39'E; sounding, 2100 fm; wind, 140°, 15 kt; weather, fog in patches; sea, slight.

0	8.00	33.13	-	25.83	0	8.00	33.13	25.83	218	0.00
10	7.71	33.13	7.11	25.87	10	7.71	33.13	25.87	214	0.02
25	7.72	33.12	7.00	25.86	20	7.66	33.12	25.87	214	0.04
50	7.59	33.13	6.99	25.88	30	7.71	33.12	25.87	215	0.06
75	(6.07)a)	33.13	7.20	(26.09)	50	7.59	33.13	25.88	213	0.11
100	3.16	33.22	7.44	26.48	75	6.07	33.13	26.09	194	0.16
125	2.93	33.24	7.37	26.51	100	3.16	33.22	26.48	157	0.20
150	2.87	33.26	7.13	26.53	150	2.87	33.26	26.53	152	0.28
175	3.06	33.36	6.42	26.59	200	3.45	33.53	26.70	137	0.35
200	3.45	33.53	4.54	26.70	250	3.83	33.78	26.86	122	0.42
225	3.75	33.69	3.10	26.80	300	3.79	33.86	26.93	116	0.48
250	3.83	33.78	2.37	26.86	400	3.61	34.09	27.12	98	0.59
300	3.79	33.86	1.68	26.93	500	3.51	34.17	27.19	92	0.68
400	3.61	34.09	0.76	27.12	600	3.35	34.24	27.27	86	0.77
500	3.51	34.17	0.85	27.19	700	3.20	34.29	27.32	81	0.86
600	3.35	34.24	0.69	27.27	800	3.07	34.32	27.36	78	0.94
800	3.07	34.32	0.58	27.36	1000	2.81	34.40	27.44	71	1.09
1000	2.81	34.40	0.69	27.44	1200	2.56	34.46	27.52	65	1.23
1500	2.21	34.53	0.97	27.60	1500	2.21	34.53	27.60	57	1.41

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CNAV WHITETHROAT; August 1, 1958; 2230 GCT; 52°26'N, 178°37'E; sounding, 1400 fm; wind, 220°, 15 kt; weather, overcast; sea, missing.

0	7.00	33.15	6.79	25.99	0	7.00	33.15	25.99	203	0.00
10	6.96	33.16	6.93	26.00	10	6.96	33.16	26.00	202	0.02
23	6.91	33.10	6.98	25.96	20	6.92	33.12	25.97	204	0.04
47	4.87	33.17	6.78	26.26	30	6.58	33.09	26.00	202	0.06
71	4.11	33.22	6.35	26.38	50	4.70	33.17	26.28	175	0.10
94	3.72	33.24	6.26	26.44	75	4.02	33.23	26.40	164	0.14
117	3.72	33.32	5.85	26.50	100	3.68	33.25	26.45	159	0.18
140	3.65	33.40	5.22	26.57	150	3.64	33.42	26.59	146	0.26
163	3.66	33.45	4.80	26.61	200	3.97	33.68	26.76	131	0.33
186	3.89	33.58	3.90	26.69	250	4.01	33.79	26.85	123	0.39
210	4.01	33.76	3.04	26.82	300	3.94	33.92	26.96	113	0.45
234	4.02	33.77	2.41	26.83	400	3.76	34.03	27.06	104	0.56
280	3.97	33.89	1.72	26.93	500	3.62	34.12	27.15	96	0.66
382	3.79	34.01	1.05	27.05	600	3.47	34.19	27.22	91	0.76
479	3.65	34.11	0.81	27.13	700	3.32	34.25	27.28	86	0.85
576	3.51	34.17	0.64	27.20	800	3.17	34.29	27.33	81	0.93
772	3.21	34.28	0.58	27.31	1000	2.87	34.37	27.42	73	1.09
946	2.95	34.35	0.60	27.40	1200	2.61	34.44	27.49	67	1.23
1454	2.31	34.51	0.78	27.57						

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CNAV WHITETHROAT; August 2, 1958; 0630 GCT; 52°14.5'N, 178°50'W; sounding, 1800 fm; wind, 240°, 5 kt; weather, overcast; sea, missing.

0	8.00	33.07	-	25.78	0	8.00	33.07	25.78	222	0.00
10	7.85	33.14	7.03	25.86	10	7.85	33.14	25.86	215	0.02
24	7.73	33.15	6.94	25.88	20	7.75	33.16	25.89	213	0.04
48	5.05	33.23	7.03	26.29	30	7.35	33.16	25.95	207	0.06
72	4.03	33.23	6.65	26.40	50	4.90	33.24	26.31	172	0.10
97	4.36	33.35	5.50	26.46	75	3.99	33.24	26.41	164	0.14
121	4.16	33.39	5.20	26.51	100	4.36	33.36	26.47	158	0.19
145	4.12	33.42	5.04	26.54	150	4.09	33.44	26.56	150	0.26
169	3.89	33.55	4.95	26.67	200	3.94	33.63	26.73	134	0.34
193	3.93	33.62	4.40	26.72	250	3.92	33.70	26.79	129	0.40
289	3.82	33.71	3.02	26.80	300	3.81	33.72	26.81	127	0.46
375	3.82	33.84	1.71	26.91	400	3.80	33.89	26.94	115	0.59
469	3.69	34.01	1.22	27.05	500	3.64	34.05	27.09	102	0.70
562	3.53	34.10	0.86	27.14	600	3.47	34.13	27.17	95	0.80
750	3.27	34.23	0.66	27.27	700	3.33	34.21	27.24	89	0.89
938	2.97	34.34	0.67	27.38	800	3.19	34.27	27.30	84	0.98
1406	2.39	34.48	0.86	27.55	1000	2.88	34.36	27.41	74	1.14
					1200	2.62	34.44	27.49	67	1.28

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
78	CNAV WHITETHROAT; August 5, 1958; 0720 GCT; 51°39'N, 175°43'W; sounding, missing; wind, calm; weather, overcast; sea, missing.									
0	8.40	32.54	-	25.31	0	8.40	32.54	25.31	267	0.00
10	7.01	32.67	6.59	25.61	10	7.01	32.67	25.61	239	0.02
25	6.36	32.92	6.66	25.88	20	6.39	32.83	25.81	220	0.05
50	5.92	33.08	6.14	26.07	30	6.21	32.97	25.95	207	0.07
75	5.68	33.15	5.86	26.15	50	5.92	33.08	26.07	196	0.11
100	5.14	33.22	4.75	26.28	75	5.68	33.15	26.15	188	0.16
125	5.02	33.29	4.66	26.34	100	5.14	33.22	26.28	176	0.20
150	4.99	33.33	4.61	26.37	150	4.99	33.33	26.37	168	0.29
175	4.85	33.45	4.52	26.49	200	4.67	33.60	26.62	144	0.37
200	4.67	33.60	3.30	26.62	250	4.41	33.73	26.75	132	0.44
225	4.47	33.69	2.82	26.72	300	4.20	33.84	26.86	122	0.50
250	4.41	33.73	2.73	26.75	400	3.97	34.01	27.02	108	0.62
300	4.20	33.84	2.07	26.86						
400	3.97	34.01	1.05	27.02						
79	CNAV WHITETHROAT; August 5, 1958; 2200 GCT; 51°45'N, 173°03'W; sounding, missing; wind, 100°, 5 kt; weather, overcast; sea, missing.									
0	10.00	32.37	-	24.92	0	10.00	32.37	24.92	304	0.00
10	9.77	32.35	6.62	24.94	10	9.77	32.35	24.94	302	0.03
25	(11.01)a)	32.33	6.60	(24.72)	20	10.38	32.34	24.83	313	0.06
50	9.74	32.76	6.53	25.27	30	11.08	32.38	24.74	322	0.09
75	4.32	32.97	6.06	26.17	50	9.74	32.76	25.27	272	0.15
99	4.08	33.29	4.79	26.44	75	4.32	32.97	26.17	186	0.21
124	4.08	33.54	3.65	26.64	100	4.08	33.30	26.45	159	0.25
149	4.17	33.72	2.42	26.78	150	4.17	33.73	26.78	129	0.33
173	4.21	33.85	1.61	26.88	200	4.21	33.91	26.92	116	0.39
198	4.21	33.90	0.88	26.91	250	3.98	34.00	27.01	108	0.44
223	4.10	33.95	0.83	26.97	300	3.86	34.05	27.06	103	0.50
248	3.99	33.99	0.55	27.01	400	3.73	34.14	27.15	96	0.60
298	3.86	34.04	0.41	27.06	500	3.53	34.21	27.23	89	0.69
386	3.75	34.13	0.54	27.14	600	3.34	34.27	27.29	84	0.78
482	3.56	34.20	0.56	27.22	700	3.15	34.31	27.35	79	0.86
578	3.38	34.26	0.62	27.28	800	2.97	34.35	27.40	74	0.94
772	3.01	34.34	0.67	27.38	1000	2.74	34.40	27.45	70	1.08
964	2.78	34.39	0.93	27.44	1200	2.53	34.45	27.51	65	1.22
1450	2.31	34.50	1.44	27.57	1500	2.27	34.51	27.58	59	1.41
1937	1.95	34.58	1.71	27.66						
80	CNAV WHITETHROAT; August 6, 1958; 0938 GCT; 51°43'N, 170°34'W; sounding, missing; wind, 090°, 5 kt; weather, cloudy; sea, missing.									
0	9.80	32.39	-	24.97	0	9.80	32.39	24.97	299	0.00
10	9.41	32.36	6.83	25.01	10	9.41	32.36	25.01	296	0.03
24	8.93	32.42	6.72	25.14	20	9.06	32.39	25.09	288	0.06
48	6.29	32.80	-	25.80	30	8.49	32.49	25.25	273	0.09
72	5.51	32.81	5.60	25.90	50	6.15	32.82	25.83	218	0.14
96	5.35	33.16	4.84	26.20	75	5.46	32.83	25.93	209	0.19
120	4.99	33.38	4.21	26.41	100	5.30	33.21	26.24	180	0.24
143	4.75	33.50	3.74	26.54	150	4.69	33.54	26.57	149	0.32
167	4.58	33.62	3.45	26.65	200	4.71	33.81	26.79	129	0.39
191	4.71	33.77	2.95	26.75	250	4.35	33.94	26.93	115	0.45
214	4.67	33.86	2.27	26.83	300	4.12	34.01	27.01	109	0.51
238	4.44	33.92	1.77	26.90	400	3.85	34.13	27.13	98	0.62
286	4.18	33.99	1.41	26.98	500	3.61	34.20	27.22	90	0.71
400	3.85	34.13	0.54	27.13	600	3.45	34.26	27.27	85	0.80
500	3.61	34.20	0.81	27.22	700	3.27	34.31	27.33	81	0.88
600	3.45	34.26	0.82	27.27	800	3.07	34.35	27.38	76	0.96
800	3.07	34.35	0.64	27.38	1000	2.75	34.45	27.49	66	1.10
1000	2.75	34.45	0.54	27.49	1200	2.48	34.51	27.56	60	1.23
1500	2.18	34.53	1.30	27.61	1500	2.18	34.53	27.61	56	1.41
2000	1.87	34.59	1.84	27.68	2000	1.87	34.59	27.68	50	1.68

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

81

CNAV WHITETHROAT; August 6, 1958; 2121 GCT; 51°56'N, 168°23'W; sounding, missing; wind, 320°, 10 kt; weather, overcast; sea, missing.

0	10.00	32.64	-	25.14	0	10.00	32.64	25.14	284	0.00
10	9.85	32.56	6.61	25.10	10	9.85	32.56	25.10	288	0.03
24	9.75	32.56	6.61	25.11	20	9.77	32.55	25.10	288	0.06
48	5.64	32.81	6.79	25.89	30	9.19	32.59	25.23	275	0.09
72	4.41	33.00	6.13	26.17	50	5.43	32.83	25.93	209	0.14
96	4.10	33.38	4.32	26.51	75	4.32	33.03	26.21	182	0.18
120	4.17	33.72	2.46	26.77	100	4.09	33.43	26.56	150	0.23
145	3.94	33.82	1.77	26.88	150	3.92	33.84	26.89	118	0.29
168	3.89	33.88	1.41	26.93	200	3.89	33.96	27.00	109	0.35
192	3.89	33.95	1.03	26.98	250	3.93	34.04	27.05	104	0.40
215	3.89	33.98	0.71	27.01	300	3.87	34.10	27.11	99	0.46
240	3.93	34.03	0.63	27.04	400	3.60	34.15	27.17	93	0.55
288	3.89	34.09	0.54	27.10	500	3.47	34.22	27.24	88	0.64
368	3.66	34.13	0.57	27.15	600	3.34	34.26	27.29	84	0.73
460	3.53	34.19	0.46	27.22	700	3.21	34.31	27.34	80	0.81
554	3.40	34.24	0.49	27.26	800	3.06	34.35	27.38	76	0.89
746	3.15	34.33	0.48	27.36	1000	2.70	34.43	27.48	68	1.04
944	2.79	34.41	0.54	27.45	1200	2.42	34.48	27.54	62	1.17
1438	2.18	34.53	0.97	27.60	1500	2.13	34.54	27.61	55	1.34
1933	1.89	34.60	1.64	27.68						

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CNAV WHITETHROAT; August 7, 1958; 0856 GCT; 51°48'N, 165°46'W; sounding, missing; wind, 360°, 10 kt; weather, overcast; sea, missing.

0	10.00	32.55	-	25.07	0	10.00	32.55	25.07	290	0.00
10	9.75	32.54	6.51	25.09	10	9.75	32.54	25.09	288	0.03
25	9.59	32.54	6.66	25.12	20	9.61	32.53	25.11	286	0.06
50	5.51	32.82	7.02	25.91	30	9.16	32.57	25.21	277	0.09
75	4.57	32.97	6.29	26.14	50	5.51	32.82	25.91	211	0.14
100	4.26	33.55	3.60	26.63	75	4.57	32.97	26.14	189	0.19
125	4.04	33.81	1.58	26.86	100	4.26	33.55	26.63	143	0.23
150	3.93	33.88	1.27	26.93	150	3.93	33.88	26.93	115	0.29
175	3.84	33.91	1.08	26.96	200	3.81	33.95	26.99	109	0.35
200	3.81	33.95	1.08	26.99	250	3.78	34.00	27.04	105	0.40
225	3.78	33.99	0.83	27.03	300	3.71	34.06	27.09	100	0.46
250	3.78	34.00	1.09	27.04	400	3.52	34.17	27.19	92	0.55
300	3.71	34.06	0.84	27.09	500	3.44	34.23	27.25	87	0.64
378	3.55	34.15	0.53	27.17	600	3.30	34.28	27.30	82	0.73
474	3.47	34.22	0.49	27.24	700	3.12	34.32	27.35	78	0.81
569	3.35	34.26	0.62	27.29	800	2.92	34.35	27.40	74	0.88
759	2.99	34.33	0.65	27.38	1000	2.62	34.42	27.47	67	1.03
950	2.69	(34.40)a)	0.90	(27.46)	1200	2.37	34.48	27.54	61	1.16
1395	2.17	34.53	1.08	27.60	1500	2.09	34.55	27.62	54	1.34
1833	1.92	34.58	1.11	27.67						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
83	CNAV WHITETHROAT; August 7, 1958; 1817 GCT; 51°50'N, 163°29'W; sounding, missing; wind, 320°, 15 kt; weather, overcast; sea, slight.									
0	9.40	32.66	-	25.24	0	9.40	32.66	25.24	273	0.00
10	9.42	32.61	6.62	25.20	10	9.42	32.61	25.20	278	0.03
24	9.20	32.61	6.80	25.24	20	9.29	32.60	25.22	276	0.06
48	5.26	32.80	7.02	25.93	30	8.64	32.64	25.35	264	0.08
72	4.68	32.90	6.61	26.07	50	5.08	32.81	25.96	206	0.13
96	4.09	33.31	4.42	26.46	75	4.61	32.93	26.10	192	0.18
120	4.22	33.71	2.26	26.76	100	4.06	33.38	26.51	154	0.22
144	4.20	33.85	1.47	26.87	150	4.20	33.87	26.89	118	0.29
168	4.19	33.92	0.87	26.93	200	4.03	33.97	26.99	109	0.35
192	4.05	33.96	0.59	26.98	250	3.93	34.06	27.06	103	0.40
216	4.01	34.00	0.50	27.01	300	3.83	34.11	27.12	98	0.45
240	3.95	34.04	0.43	27.05	400	3.68	34.17	27.18	93	0.55
288	3.85	34.09	0.41	27.10	500	3.53	34.23	27.24	87	0.64
390	3.69	34.16	0.47	27.17	600	3.37	34.29	27.30	82	0.73
489	3.55	34.22	0.49	27.24	700	3.18	34.33	27.36	78	0.81
587	3.39	34.28	0.50	27.30	800	2.97	34.37	27.41	74	0.88
784	3.00	34.36	0.53	27.40	1000	2.66	34.42	27.47	68	1.03
981	2.69	34.42	0.64	27.47	1200	2.41	34.47	27.54	62	1.16
1474	2.17	34.54	1.02	27.61	1500	2.15	34.54	27.62	55	1.34
1968	1.87	34.60	1.61	27.68						
84	CNAV WHITETHROAT; August 7, 1958; 0400 GCT; 52°00'N, 161°00'W; sounding, missing; wind, 270°, 17 kt; weather, overcast; sea, rough.									
0	10.00	32.69	-	25.17	0	10.00	32.69	25.17	280	0.00
10	9.49	32.64	6.88	25.22	10	9.49	32.64	25.22	276	0.03
24	9.45	32.64	6.83	25.22	20	9.38	32.63	25.23	275	0.06
48	5.53	32.81	7.09	25.91	30	8.93	32.66	25.32	267	0.08
73	4.62	32.97	6.20	26.13	50	5.34	32.83	25.94	208	0.13
98	4.01	33.61	3.25	26.70	75	4.56	33.00	26.16	187	0.18
123	4.09	33.89	1.05	26.92	100	3.99	33.64	26.73	133	0.22
147	4.05	33.97	0.75	26.98	150	4.05	33.97	26.99	109	0.28
172	4.02	33.98	0.53	27.00	200	3.96	34.04	27.05	104	0.34
196	3.97	34.03	0.52	27.04	250	3.89	34.07	27.08	101	0.39
221	3.93	34.05	0.49	27.06	300	3.76	34.14	27.15	95	0.44
246	3.90	34.07	0.49	27.08	400	3.57	34.20	27.22	89	0.53
295	3.77	34.13	0.47	27.14	500	3.41	34.24	27.27	85	0.62
390	3.59	34.19	0.53	27.21	600	3.26	34.28	27.31	82	0.70
486	3.43	34.24	0.54	27.26	700	3.10	34.32	27.36	78	0.78
580	3.29	34.27	0.50	27.30	800	2.95	34.37	27.41	73	0.86
772	2.99	34.36	0.81	27.40	1000	2.62	34.43	27.49	66	1.00
962	2.68	34.42	1.29	27.48	1200	2.37	34.49	27.56	60	1.13
1456	2.13	34.54	1.46	27.62	1500	2.09	34.55	27.63	54	1.30
1952	1.85	34.61	1.85	27.70						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

85

CNAV WHITETHROAT; August 8, 1958; 1331 GCT; 52°08'N, 158°34'W; sounding, missing; wind, 240°, 15 kt; weather, fog; sea, slight.

0	9.40	32.75	-	25.32	0	9.40	32.75	25.32	266	0.00
10	9.30	32.69	6.69	25.29	10	9.30	32.69	25.29	270	0.03
25	9.30	32.67	6.79	25.27	20	9.28	32.67	25.27	271	0.05
50	5.45	32.79	7.19	25.90	30	8.91	32.68	25.34	265	0.08
75	4.30	32.95	6.72	26.15	50	5.45	32.79	25.90	212	0.13
100	3.96	33.65	2.64	26.74	75	4.30	32.95	26.15	188	0.18
125	3.99	33.84	1.48	26.89	100	3.96	33.65	26.74	132	0.22
150	3.96	33.91	0.91	26.95	150	3.96	33.91	26.95	113	0.28
175	3.97	33.98	0.59	27.00	200	3.89	34.00	27.03	106	0.34
200	3.89	34.00	0.49	27.03	250	3.85	34.05	27.07	102	0.39
225	3.89	34.03	0.46	27.05	300	3.79	34.09	27.11	99	0.44
250	3.85	34.05	0.44	27.07	400	3.64	34.18	27.19	92	0.54
300	3.79	34.09	0.39	27.11	500	3.46	34.23	27.25	86	0.63
396	3.65	34.17	0.38	27.19	600	3.31	34.27	27.30	83	0.71
495	3.47	34.23	0.44	27.25	700	3.14	34.32	27.35	78	0.79
594	3.32	34.27	0.43	27.30	800	2.96	34.36	27.40	74	0.87
792	2.97	34.36	0.53	27.40	1000	2.68	34.43	27.48	67	1.01
990	2.69	34.42	0.58	27.48	1200	2.44	34.48	27.54	62	1.14
1485	2.16	34.53	0.95	27.61	1500	2.15	34.53	27.61	56	1.32
1980	1.90	34.60	1.53	27.68						

86

CNAV WHITETHROAT; August 9, 1958; 0205 GCT; 52°12'N, 156°11'W; sounding, missing; wind, 240°, 10 kt; weather, fog; sea, slight.

0	9.90	32.61	-	25.12	0	9.90	32.61	25.12	285	0.00
9	9.56	32.69	6.81	25.24	10	9.54	32.69	25.25	273	0.03
23	9.51	32.68	6.70	25.24	20	9.47	32.69	25.26	272	0.06
47	6.47	32.85	7.29	25.82	30	9.01	32.71	25.35	264	0.08
71	5.00	32.88	7.18	26.02	50	6.20	32.86	25.86	215	0.13
94	4.22	33.00	6.48	26.20	75	4.82	32.89	26.05	198	0.18
117	3.97	33.66	2.84	26.75	100	4.10	33.13	26.31	173	0.23
140	3.95	33.81	1.78	26.87	150	3.93	33.85	26.90	117	0.30
163	3.88	33.88	1.44	26.93	200	3.81	33.94	26.99	110	0.36
186	3.82	33.91	1.16	26.96	250	3.81	34.00	27.03	106	0.41
210	3.81	33.97	0.94	27.01	300	3.74	34.07	27.10	100	0.47
233	3.82	33.98	0.76	27.02	400	3.66	34.16	27.18	93	0.56
280	3.76	34.05	0.53	27.08	500	3.47	34.23	27.25	87	0.65
364	3.71	34.13	0.52	27.15	600	3.28	34.27	27.30	82	0.74
454	3.55	34.20	0.50	27.22	700	3.12	34.32	27.36	78	0.82
546	3.38	34.25	0.55	27.27	800	2.95	34.37	27.41	74	0.90
735	3.06	34.34	0.59	27.38	1000	2.63	34.43	27.48	67	1.04
930	2.73	34.41	0.84	27.46	1200	2.40	34.48	27.54	62	1.17
1419	2.23	34.52	1.20	27.59	1500	2.17	34.53	27.61	56	1.35
1910	1.92	34.59	1.52	27.67						

87

CNAV WHITETHROAT; August 9, 1958; 1236 GCT; 52°15'N, 153°00'W; sounding, missing; wind, 270°, 20 kt; weather, overcast; sea, slight.

0	10.20	32.72	-	25.16	0	10.20	32.72	25.16	282	0.00
10	10.06	32.69	6.48	25.17	10	10.06	32.69	25.17	281	0.03
25	10.07	32.69	6.56	25.16	20	10.04	32.69	25.17	281	0.06
50	7.37	32.77	7.01	25.63	30	9.80	32.70	25.21	277	0.08
75	4.53	32.89	6.79	26.08	50	7.37	32.77	25.63	237	0.14
100	4.00	33.39	4.00	26.53	75	4.53	32.89	26.08	195	0.19
125	3.88	33.66	2.59	26.76	100	4.00	33.39	26.53	152	0.23
150	3.97	33.81	1.69	26.87	150	3.97	33.81	26.87	121	0.30
175	3.90	33.88	1.19	26.93	200	3.88	33.93	26.97	111	0.36
200	3.88	33.93	0.87	26.97	250	3.85	33.98	27.02	107	0.42
225	3.86	33.97	0.67	27.00	300	3.76	34.05	27.08	102	0.47
250	3.85	33.98	0.63	27.02	400	3.67	34.14	27.16	95	0.57
300	3.76	34.05	0.50	27.08	500	3.47	34.19	27.22	90	0.66
400	3.67	34.14	0.44	27.16	600	3.33	34.25	27.28	84	0.75
500	3.47	34.19	0.45	27.22	700	3.16	34.30	27.34	80	0.83
600	3.33	34.25	0.47	27.28	800	2.97	34.35	27.39	75	0.91
800	2.97	34.35	0.55	27.39	1000	2.69	34.41	27.46	69	1.06
1000	2.69	34.41	0.65	27.46	1200	2.44	34.46	27.53	63	1.19
1500	2.10	34.54	0.88	27.61	1500	2.10	34.54	27.61	55	1.37

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
88	CNAV WHITETHROAT; August 9, 1958; 2358 GCT; 51°57'N, 150°52'W; sounding, missing; wind, 270°, 20 kt; weather, partly cloudy; sea, slight.									
0	11.20	32.70	-	24.98	0	11.20	32.70	24.98	299	0.00
10	10.98	32.63	6.61	24.96	10	10.98	32.63	24.96	301	0.03
25	10.92	32.64	6.52	24.97	20	10.90	32.62	24.96	301	0.06
50	6.65	32.80	6.61	25.76	30	10.48	32.65	25.06	291	0.09
75	5.74	32.83	7.04	25.90	50	6.65	32.80	25.76	225	0.14
100	5.02	32.88	6.89	26.01	75	5.74	32.83	25.90	212	0.20
125	4.13	33.40	4.93	26.53	100	5.02	32.88	26.01	201	0.25
150	3.73	33.62	4.01	26.74	150	3.73	33.62	26.74	132	0.33
175	3.65	33.71	3.38	26.82	200	3.60	33.78	26.88	119	0.40
200	3.60	33.78	2.69	26.88	250	3.64	33.90	26.97	112	0.46
225	3.64	33.86	2.15	26.94	300	3.65	33.98	27.03	106	0.51
250	3.64	33.90	1.71	26.97	400	3.69	34.09	27.12	99	0.61
300	3.65	33.98	1.30	27.03	500	3.60	34.18	27.20	92	0.71
396	3.69	34.09	0.91	27.11	600	3.36	34.25	27.27	85	0.80
494	3.61	34.17	0.81	27.19	700	3.17	34.29	27.33	80	0.88
593	3.37	34.24	0.73	27.27	800	3.04	34.33	27.37	77	0.96
790	3.06	34.33	0.66	27.36	1000	2.75	34.40	27.45	70	1.11
987	2.77	34.40	0.77	27.45	1200	2.51	34.46	27.52	64	1.25
1481	2.27	34.51	0.91	27.58	1500	2.25	34.51	27.58	59	1.43
1974	1.91	34.58	1.81	27.66						
89	CNAV WHITETHROAT; August 10, 1958; 1731 GCT; 51°32'N, 148°29'W; sounding, missing; wind, 270°, 17 kt; weather, partly cloudy; sea, slight.									
0	12.00	(33.49)a)	-	(25.43)	0	12.00	33.49	25.43	255	0.00
10	11.99	(33.32)b)	6.24	(25.31)	10	11.99	33.32	25.31	268	0.03
25	12.10	(33.11)b)	6.32	(25.13)	20	12.05	33.17	25.18	280	0.05
49	8.20	(32.88)b)	7.20	(25.60)	30	11.70	33.05	25.15	283	0.08
73	6.37	32.78	7.18	25.78	50	8.08	32.88	25.62	239	0.14
97	5.75	32.81	6.89	25.88	75	6.27	32.78	25.79	223	0.19
121	5.31	32.96	6.43	26.05	100	5.69	32.82	25.89	213	0.25
146	4.58	33.31	5.23	26.41	150	4.49	33.36	26.46	160	0.34
170	4.11	33.55	4.30	26.65	200	3.85	33.73	26.81	126	0.41
194	3.87	33.70	3.32	26.79	250	3.91	33.87	26.92	116	0.47
218	3.89	33.79	2.60	26.86	300	3.85	33.94	26.98	111	0.53
242	3.91	33.85	2.07	26.91	400	3.76	34.09	27.11	100	0.64
291	3.86	33.92	1.43	26.97	500	3.64	34.18	27.19	92	0.74
374	3.79	34.06	0.82	27.08	600	3.46	34.23	27.25	88	0.82
464	3.69	(34.16)b)	0.55	(27.17)	700	3.27	34.28	27.31	82	0.91
558	3.53	34.21	0.53	27.23	800	3.09	34.33	27.36	78	0.99
754	3.17	34.31	0.50	27.34						
950	2.87	34.39	0.50	27.43						

a) Value extrapolated by three-point parabolic method.
b) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

90

CNAV WHITETHROAT; August 11, 1958; 0230 GCT; 51°13'N, 146°40'W; sounding, missing; wind, 320°, 15 kt; weather, partly cloudy; sea, slight.

0	13.00	32.63	-	24.58	0	13.00	32.63	24.58	336	0.00
10	12.64	32.61	6.23	24.63	10	12.64	32.61	24.63	332	0.03
25	12.50	32.60	6.40	24.65	20	12.49	32.60	24.65	330	0.07
50	7.04	32.76	7.30	25.67	30	11.93	32.62	24.77	319	0.10
75	6.07	32.80	6.78	25.83	50	7.04	32.76	25.67	233	0.16
100	5.67	32.85	6.53	25.92	75	6.07	32.80	25.83	219	0.21
125	5.20	33.27	6.45	26.30	100	5.67	32.85	25.92	210	0.27
150	4.67	33.68	4.74	26.69	150	4.67	33.68	26.69	137	0.35
175	4.28	33.72	3.88	26.77	200	4.00	33.77	26.83	125	0.42
200	4.00	33.77	3.38	26.83	250	3.59	33.83	26.92	116	0.48
225	3.82	33.80	3.20	26.87	300	3.67	33.91	26.98	111	0.54
250	3.59	33.83	3.11	26.92	400	3.70	34.03	27.07	103	0.65
300	3.67	33.91	1.83	26.98	500	3.65	34.14	27.16	95	0.75
395	3.70	34.03	1.14	27.07	600	3.50	34.21	27.23	90	0.84
495	3.65	34.14	0.76	27.16	700	3.33	34.27	27.29	84	0.93
594	3.51	34.20	0.65	27.22	800	3.13	34.32	27.35	79	1.01
792	3.14	34.32	0.54	27.35	1000	2.83	34.38	27.43	72	1.16
990	2.84	34.38	0.62	27.43	1200	2.58	34.44	27.50	66	1.30
1485	2.32	34.50	0.72	27.57	1500	2.31	34.50	27.57	60	1.50
1980	1.96	34.58	1.31	27.66						

91

CNAV WHITETHROAT; August 12, 1958; 1355 GCT; 50°54'N, 144°21'W; sounding, missing; wind, 140°, 10 kt; weather, overcast; sea, missing.

0	13.80	32.65	-	24.44	0	13.80	32.65	24.44	350	0.00
10	13.83	32.61	5.97	24.40	10	13.83	32.61	24.40	354	0.04
25	13.66	32.65	6.05	24.46	20	13.75	32.62	24.42	352	0.07
50	7.41	32.72	7.06	25.59	30	13.01	32.66	24.60	335	0.10
75	6.99	32.83	7.00	25.74	50	7.41	32.72	25.59	241	0.16
100	6.34	32.86	6.72	25.84	75	6.99	32.83	25.74	228	0.22
125	5.76	33.23	5.78	26.21	100	6.34	32.86	25.84	218	0.28
150	5.03	33.48	5.00	26.49	150	5.03	33.48	26.49	156	0.37
175	4.66	33.64	4.50	26.66	200	4.57	33.74	26.75	133	0.44
200	4.57	33.74	3.92	26.75	250	4.19	33.81	26.85	123	0.51
225	4.32	33.80	3.36	26.82	300	4.10	33.89	26.92	117	0.57
250	4.19	33.81	2.98	26.85	400	4.01	34.01	27.02	108	0.68
300	4.10	33.89	2.11	26.92	500	3.88	34.09	27.10	101	0.79
392	4.02	34.00	1.52	27.02	600	3.69	34.18	27.19	94	0.89
490	3.90	34.09	1.03	27.09	700	3.49	34.25	27.26	87	0.98
590	3.71	34.17	0.71	27.18	800	3.28	34.29	27.32	82	1.07
788	3.30	34.29	0.59	27.31	1000	2.93	34.38	27.42	73	1.22
986	2.95	34.38	0.55	27.41	1200	2.64	34.45	27.50	66	1.36
1483	2.33	34.51	0.80	27.57	1500	2.31	34.51	27.58	60	1.56
1980	1.95	34.58	1.42	27.66						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
92	CNAV WHITETHROAT; August 11, 1958; 0052 GCT; 50°31'N, 142°10'W; sounding, missing; wind, 040°, 10 kt; weather, cloudy; sea, missing.									
0	13.90	32.44		24.26	0	13.90	32.44	24.26	367	0.00
10	14.71	32.44		24.08	10	14.71	32.44	24.08	384	0.04
25	14.67	32.49		24.13	20	14.85	32.46	24.07	386	0.08
49	8.71	32.71		25.39	30	14.03	32.52	24.29	365	0.11
73	7.45	32.77		25.62	50	8.56	32.72	25.42	257	0.18
98	6.84	32.77		25.71	75	7.37	32.77	25.63	238	0.24
123	6.47	32.86		25.83	100	6.80	32.78	25.72	230	0.30
147	5.99	33.20		26.15	150	5.91	33.24	26.20	185	0.40
172	5.13	33.55		26.54	200	4.64	33.67	26.69	138	0.48
196	4.68	33.66		26.67	250	4.44	33.81	26.82	126	0.55
220	4.57	33.73		26.74	300	4.19	33.90	26.91	117	0.61
245	4.46	-		26.81	400	3.99	34.02	27.03	107	0.72
294	4.21	33.89		26.90	500	3.79	34.11	27.12	99	0.83
400	3.99	34.02		27.03	600	3.65	34.19	27.20	92	0.93
500	3.79	34.11		27.12	700	3.46	34.26	27.27	86	1.02
600	3.65	34.19		27.20	800	3.21	34.31	27.34	80	1.10
800	3.21	34.31		27.34	1000	2.91	34.38	27.42	73	1.26
1000	2.91	34.38		27.42	1200	2.64	34.44	27.49	67	1.40
1500	2.30	34.50		27.57	1500	2.30	34.50	27.57	60	1.59
2000	1.90	(34.54)a)		(27.63)	2000	1.90	34.54	27.63	55	1.88
93	CNAV WHITETHROAT; August 12, 1958; 1155 GCT; 50°14'N, 139°42'W; sounding, missing; wind, 180°, 10 kt; weather, overcast; sea, missing.									
0	15.20	32.64	-	24.13	0	15.20	32.64	24.13	379	0.00
10	15.23	32.53	5.96	24.04	10	15.23	32.53	24.04	388	0.04
25	15.22	32.53	6.00	24.04	20	15.23	32.51	24.02	390	0.08
50	8.23	32.69	6.96	25.45	30	14.52	32.54	24.20	373	0.12
75	7.28	32.73	6.80	25.62	50	8.23	32.69	25.45	255	0.18
100	6.58	32.74	6.68	25.72	75	7.28	32.73	25.62	239	0.24
125	6.36	33.13	6.04	26.05	100	6.58	32.74	25.72	230	0.30
150	5.74	33.45	5.64	26.38	150	5.74	33.45	26.38	167	0.40
175	5.27	33.60	5.32	26.56	200	5.04	33.72	26.68	139	0.48
200	5.04	33.72	4.68	26.68	250	4.91	33.84	26.79	129	0.54
225	4.98	33.80	4.10	26.75	300	4.52	33.91	26.88	121	0.61
250	4.91	33.84	3.62	26.79	400	4.15	34.00	27.00	110	0.72
300	4.52	33.91	2.70	26.88	500	3.89	34.10	27.10	101	0.83
382	4.21	33.99	1.76	26.98	600	3.71	34.16	27.17	95	0.93
478	3.94	34.08	1.11	27.08	700	3.51	34.23	27.24	89	1.02
574	3.76	34.15	0.73	27.15	800	3.31	34.28	27.30	84	1.11
764	3.38	34.26	0.58	27.28	1000	2.97	34.36	27.40	75	1.27
956	3.04	34.35	0.50	27.38	1200	2.67	34.43	27.48	68	1.42
1444	2.37	34.50	0.63	27.56	1500	2.31	34.51	27.58	60	1.61
1936	1.99	34.57	1.23	27.65						

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	σ_t g/L	δ cl/ton	ΔD dyn m

94

CNAV WHITETHROAT; August 12, 1958; 2225 GCT; 50°05'N, 137°22'W; sounding, missing; wind, 140°, 15 kt; weather, partly cloudy; sea, smooth.

0	16.30	32.50	-	23.78	0	16.30	32.50	23.78	413	0.00
9	16.42	32.50	5.91	23.75	10	16.43	32.50	23.75	416	0.04
23	16.43	32.49	5.99	23.75	20	16.45	32.50	23.74	417	0.08
45	11.17	32.48	6.68	24.81	30	15.46	32.49	23.96	396	0.12
68	8.59	32.52	6.97	25.26	50	10.36	32.49	24.95	302	0.19
90	7.60	32.61	5.57	25.48	75	8.12	32.54	25.35	265	0.27
114	6.79	32.78	6.08	25.72	100	7.23	32.67	25.58	243	0.33
135	6.12	33.09	5.78	26.06	150	5.73	33.34	26.30	175	0.44
157	5.57	33.46	5.06	26.41	200	5.37	33.77	26.68	139	0.51
179	5.43	33.63	4.67	26.56	250	5.21	33.87	26.78	130	0.58
201	5.37	33.78	4.26	26.68	300	4.88	33.95	26.88	121	0.65
224	5.30	33.81	4.03	26.72	400	4.35	34.00	26.98	112	0.76
269	5.13	33.92	2.37	26.82	500	4.19	34.09	27.06	105	0.87
331	4.52	33.95	1.74	26.92	600	4.02	34.14	27.12	101	0.98
408	4.37	34.01	1.38	26.98	700	3.56	34.28	27.28	85	1.07
480	4.23	34.07	1.01	27.05	800	3.15	34.42	27.43	72	1.15
628	3.97	34.14	0.67	27.13	1000	2.90	34.45	27.48	68	1.29
673	3.70	34.24	0.46	27.23	1200	2.74	34.44	27.48	68	1.43
1068	2.99	34.39	0.38	27.42						
1360	2.44	34.48	0.59	27.55						

95

CNAV WHITETHROAT; August 13, 1958; 0824 GCT; 50°03'N, 135°09'W; sounding, missing; wind, 180°, 20 kt; weather, overcast; sea, slight.

0	16.10	32.01	-	23.45	0	16.10	32.01	23.45	445	0.00
10	16.12	31.99	5.66	23.43	10	16.12	31.99	23.43	447	0.04
25	16.05	31.97	5.79	23.43	20	16.09	31.98	23.43	447	0.09
49	11.01	32.51	6.80	24.86	30	15.50	32.03	23.60	431	0.13
74	8.71	32.55	6.76	25.27	50	10.86	32.52	24.90	308	0.21
98	7.42	32.66	6.22	25.54	75	8.64	32.55	25.28	271	0.28
123	7.44	33.09	4.49	25.88	100	7.37	32.68	25.57	244	0.35
148	6.95	33.45	3.86	26.22	150	6.92	33.47	26.25	180	0.45
172	6.71	33.72	3.17	26.47	200	6.40	33.85	26.62	146	0.54
197	6.43	33.84	2.71	26.60	250	5.88	33.93	26.75	134	0.60
221	6.16	33.90	2.45	26.69	300	5.38	33.99	26.85	124	0.67
246	5.92	33.93	2.18	26.74	400	4.90	34.06	26.96	115	0.79
295	5.42	33.98	1.77	26.84	500	4.47	34.13	27.07	105	0.90
370	5.04	34.03	1.21	26.93	600	4.15	34.20	27.16	97	1.00
462	4.61	34.11	0.76	27.03	700	3.85	34.26	27.23	91	1.10
555	4.29	34.17	0.66	27.12	800	3.60	34.30	27.29	85	1.19
740	3.74	34.28	0.46	27.26	1000	3.24	34.37	27.39	77	1.35
925	3.39	34.35	0.40	27.35	1200	2.81	34.45	27.48	68	1.50
1410	2.33	34.52	0.74	27.58	1500	2.20	34.54	27.61	56	1.69
1898	1.91	34.59	1.34	27.67						

96

CNAV WHITETHROAT; August 13, 1958; 1923 GCT; 50°30'N, 130°50'W; sounding, missing; wind, 140°, 10 kt; weather, overcast; sea, missing.

0	16.60	32.05	-	23.37	0	16.60	32.05	23.37	452	0.00
10	16.49	32.03	5.73	23.37	10	16.49	32.03	23.37	452	0.04
25	12.30	32.12	5.91	24.32	20	14.23	32.07	23.90	402	0.09
50	9.28	32.41	5.85	25.07	30	11.30	32.17	24.54	341	0.13
74	8.09	32.69	5.39	25.47	50	9.28	32.41	25.07	290	0.19
99	7.53	32.99	4.80	25.79	75	8.05	32.70	25.49	252	0.26
123	7.21	33.43	3.92	26.17	100	7.51	33.01	25.80	222	0.32
148	7.01	33.70	3.33	26.41	150	7.00	33.71	26.43	163	0.41
173	7.01	33.81	2.91	26.50	200	6.66	33.88	26.60	147	0.49
197	6.70	33.87	2.90	26.59	250	6.08	33.92	26.71	137	0.56
222	6.37	33.90	2.68	26.66	300	5.64	33.95	26.79	130	0.63
246	6.12	33.92	2.50	26.71	400	5.05	34.01	26.91	120	0.76
296	5.67	33.95	2.17	26.79	500	4.63	34.09	27.02	110	0.87
400	5.05	34.01	1.33	26.91	600	4.36	34.17	27.11	102	0.98
500	4.63	34.09	0.86	27.02	700	4.10	34.24	27.19	95	1.08
600	4.36	34.17	0.68	27.11	800	3.85	34.29	27.26	89	1.17
800	3.85	34.29	0.38	27.26	1000	3.37	34.38	27.38	78	1.34
1000	3.37	34.38	0.44	27.38						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
97	CNAV WHITETHROAT; August 14, 1958; 0350 GCT; 50°41'N, 129°08'W; sounding, missing; wind, 270°, force missing; weather, missing; sea, missing.									
0	15.60	31.88	-	23.46	0	15.60	31.88	23.46	443	0.00
10	15.39	31.86	6.08	23.49	10	15.39	31.86	23.49	441	0.04
25	11.25	32.39	5.90	24.72	20	13.14	32.14	24.17	376	0.08
49	8.88	32.49	5.76	25.19	30	10.32	32.49	24.96	301	0.12
74	7.99	32.94	4.46	25.68	50	8.81	32.50	25.21	277	0.18
98	7.17	33.42	3.67	26.17	75	7.96	32.96	25.70	232	0.24
123	6.94	33.69	3.18	26.41	100	7.13	33.45	26.20	184	0.29
147	6.62	33.84	2.78	26.58	150	6.59	33.85	26.59	148	0.38
171	6.43	33.89	2.51	26.64						
195	6.36	33.89	2.42	26.66						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

HMCS OSHAWA; July 23, 1958; 0353 GCT;[a] 48°53.5'N, 125°33'W; sounding, 59 fm; wind, 300°, 15 kt; weather, partly cloudy; sea, slight. 1

0	14.60	30.95	-	22.97	0	14.60	30.95	22.97	491	0.00
10	14.39	30.97	6.54	23.02	10	14.39	30.97	23.02	486	0.05
20	10.95	31.58	4.87	24.15	20	10.95	31.58	24.15	378	0.09
30	10.27	31.84	3.55	24.47	30	10.27	31.84	24.47	348	0.13
40	9.63	32.01	3.54	24.70	50	9.34	32.22	24.91	306	0.20
50	9.34	32.22	3.68	24.91	75	8.58	32.77	25.46	254	0.26
75	8.58	32.77	3.40	25.46						

HMCS OSHAWA; July 23, 1958; 0555 GCT; 48°45'N, 125°45'W; sounding, 65 fm; wind, 300°, 10 kt; weather, partly cloudy; sea, moderate. 2

0	14.20	31.27	7.10	23.29	0	14.20	31.27	23.29	460	0.00
10	14.27	31.22	7.41	23.24	10	14.27	31.22	23.24	465	0.05
20	10.28	31.59	4.82	24.27	20	10.28	31.59	24.27	367	0.09
30	9.40	32.16	3.57	24.86	30	9.40	32.16	24.86	311	0.12
50	9.00	32.36	3.34	25.07	50	9.00	32.36	25.07	290	0.18
75	8.34	32.85	2.93	25.56	75	8.34	32.85	25.56	245	0.25
100	8.05	33.01	2.84	25.73	100	8.05	33.01	25.73	229	0.31

HMCS OSHAWA; July 23, 1958; 0810 GCT; 48°35.5'N, 126°00'W; sounding, 58 fm; wind, 300°, 15 kt; weather, clear; sea, moderate. 3

0	12.80	30.92		23.30	0	12.80	30.92	23.30	458	0.00
10	12.97	30.92		23.27	10	12.97	30.92	23.27	462	0.05
19	12.43	31.10		23.51	20	12.30	31.16	23.58	432	0.09
29	10.42	32.04		24.60	30	10.26	32.12	24.68	327	0.13
49	8.48	32.85		25.54	50	8.41	32.89	25.58	243	0.19
78	7.28	33.53		26.24	75	7.32	33.49	26.21	183	0.24

HMCS OSHAWA; July 23, 1958; 1205 GCT; 48°17'N, 126°30'W; sounding, missing; wind, 340°, 15 kt; weather, partly cloudy; sea, moderate. 4

0	12.50	32.39	-	24.49	0	12.50	32.39	24.49	345	0.00
10	12.63	32.32	6.57	24.41	10	12.63	32.32	24.41	353	0.04
20	12.65	32.31	6.44	24.40	20	12.65	32.31	24.40	354	0.07
30	9.84	32.37	6.51	24.95	30	9.84	32.37	24.95	302	0.10
50	8.42	32.51	6.22	24.28	50	8.42	32.51	25.28	271	0.16
75	7.72	33.15	5.04	25.88	75	7.72	33.15	25.88	214	0.22
100	7.47	33.42	4.41	26.13	100	7.47	33.42	26.13	191	0.27
125	7.35	33.68	3.88	26.35	150	7.25	33.82	26.48	159	0.36
149	7.26	33.82	3.34	26.47						
174	7.10	33.89	2.98	26.56						
199	7.05	33.96	2.78	26.61						

HMCS OSHAWA; July 23, 1958; 1838 GCT; 47°50'N, 127°21'W; sounding, 1400 fm; wind, 310°, 25 kt; weather, missing; sea, moderate. 5

0	15.20	32.30	-	23.87	0	15.20	32.30	23.87	404	0.00
10	15.50	32.30	-	23.81	10	15.50	32.30	23.81	411	0.04
20	15.51	32.30	5.71	23.80	20	15.51	32.30	23.80	411	0.08
30	15.54	32.30	5.99	23.80	30	15.54	32.30	23.80	412	0.12
50	10.44	32.45	7.18	24.91	50	10.44	32.45	24.91	306	0.20
75	8.74	32.49	6.47	25.22	75	8.74	32.49	25.22	277	0.27
100	7.43	33.08	5.17	25.87	100	7.43	33.08	25.87	215	0.33
125	7.05	33.44	5.05	26.20	150	7.06	33.67	26.39	167	0.43
149	7.06	33.66	4.30	26.38	200	6.49	33.90	26.64	143	0.50
174	7.09	33.86	3.63	26.53	250	5.94	33.93	26.74	134	0.58
199	6.51	33.90	3.94	26.64	300	5.56	33.94	26.79	130	0.64
249	5.95	33.93	3.16	26.74	400	5.01	34.02	26.92	119	0.77
299	5.57	33.94	2.52	26.79	500	4.67	34.10	27.03	109	0.88
348	5.22	33.97	1.74	26.85	600	4.36	34.21	27.14	99	0.99
398	5.02	34.02	1.22	26.92	700	4.10	34.28	27.23	92	1.08
497	4.68	34.10	0.71	27.02	800	3.88	34.32	27.28	87	1.18
597	4.37	34.21	0.39	27.14	1000	3.48	34.41	27.39	78	1.34
796	3.89	34.31	0.26	27.27						
1045	3.40	34.42	0.25	27.41						

a) Although not indicated in the tabulation, generally two casts were made at a station, the shallow cast to 200 meters and the deep cast to a maximum depth of 1200 meters. The time reported is the time of the messenger release of the shallow cast which was made 30 to 40 minutes after the deep cast.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
6	HMCS OSHAWA; July 24, 1958; 0202 GCT; 47°14'N, 128°02'W; sounding, 1480 fm; wind, 340°, 25 kt; weather, partly cloudy; sea, high.									
0	15.80	32.15	-	23.63	0	15.80	32.15	23.63	428	0.00
10	15.79	32.13	5.35	23.61	10	15.79	32.13	23.61	429	0.04
20	15.78	32.13	5.88	23.62	20	15.78	32.13	23.62	429	0.09
30	15.68	32.12	5.85	23.63	30	15.68	32.12	23.63	428	0.13
50	10.50	32.40	6.04	24.86	50	10.50	32.40	24.86	311	0.20
75	8.75	32.47	6.27	25.20	75	8.75	32.47	25.20	279	0.28
100	7.54	32.84	5.62	25.67	100	7.54	32.84	25.67	234	0.34
125	6.96	33.28	4.82	26.10	150	6.71	33.55	26.34	171	0.44
149	6.72	33.54	4.47	26.33	200	6.42	33.86	26.62	146	0.52
174	6.68	33.76	3.89	26.51	250	6.09	33.93	26.72	136	0.60
199	6.43	33.86	3.51	26.62	300	5.51	33.93	26.79	130	0.66
227	6.31	33.92	3.08	26.68	400	4.89	34.00	26.92	119	0.79
274	5.73	33.92	2.72	26.75	500	4.69	34.09	27.01	111	0.90
320	5.40	33.94	1.95	26.81	600	4.41	34.18	27.11	102	1.01
368	5.04	33.97	1.64	26.88	700	4.12	34.26	27.20	94	1.11
465	4.78	34.06	0.99	26.97	800	3.83	34.32	27.28	87	1.20
558	4.53	34.15	0.66	27.07						
744	3.98	34.28	0.35	27.24						
976	3.43	34.41	0.37	27.40						
7	HMCS OSHAWA; July 24, 1958; 0944 GCT; 46°39'N, 129°00'W; sounding, 1450 fm; wind, 340°, 15 kt; weather, overcast; sea, rough.									
0	16.10	32.12	-	23.53	0	16.10	32.12	23.53	437	0.00
10	(16.34)a)	32.10	5.76	(23.47)	10	16.34	32.10	23.47	443	0.04
20	16.44	32.11	5.40	23.45	20	16.44	32.11	23.45	445	0.09
30	16.41	32.12	5.58	23.47	30	16.41	32.12	23.47	444	0.13
50	10.51	32.50	6.76	24.94	50	10.51	32.50	24.94	303	0.21
75	9.43	32.48	6.59	25.11	75	9.43	32.48	25.11	288	0.28
100	8.32	32.69	5.78	25.44	100	8.32	32.69	25.44	257	0.35
125	7.37	33.05	5.79	25.86	150	6.97	33.25	26.07	197	0.46
149	6.98	33.24	5.63	26.06	200	6.90	33.80	26.51	156	0.55
174	7.04	33.56	4.80	26.30	250	6.43	33.89	26.64	144	0.63
199	6.91	33.79	4.75	26.50	300	5.92	33.91	26.73	136	0.70
249	6.44	33.89	4.09	26.64	400	4.82	33.96	26.89	121	0.83
299	(5.93)a)	33.91	3.00	(26.72)	500	4.37	34.05	27.02	110	0.95
348	5.40	33.93	2.67	26.80	600	4.15	34.17	27.13	100	1.05
398	4.84	33.96	1.87	26.89	700	4.02	34.25	27.21	93	1.15
497	4.38	34.05	1.08	27.01	800	3.97	34.32	27.27	88	1.24
597	4.16	34.16	0.58	27.13	1000	3.58	34.42	27.39	78	1.41
796	3.98	34.32	0.30	27.27						
1044	3.47	34.43	0.35	27.41						
8	HMCS OSHAWA; July 25, 1958; 0041 GCT; 47°50'N, 131°20'W; sounding, 1550 fm; wind, 320°, 12 kt; weather, overcast; sea, slight.									
0	16.70	32.36	-	23.58	0	16.70	32.36	23.58	432	0.00
10	(16.71)a)	32.33	5.60	(23.56)	10	16.71	32.33	23.56	434	0.04
20	16.67	32.36	5.60	23.59	20	16.67	32.36	23.59	432	0.09
30	16.57	32.36	5.59	23.61	30	16.57	32.36	23.61	430	0.13
50	13.71	32.43	6.57	24.29	50	13.71	32.43	24.29	366	0.21
75	9.62	32.46	6.75	25.06	75	9.62	32.46	25.06	293	0.29
100	8.32	32.58	5.94	25.35	100	8.32	32.58	25.35	264	0.36
125	6.91	33.06	5.43	25.92	150	6.51	33.43	26.27	178	0.47
150	6.51	33.43	4.94	26.27	200	6.33	33.84	26.61	146	0.56
175	6.61	33.72	4.17	26.49	250	5.92	33.89	26.71	138	0.63
200	6.33	33.84	3.66	26.61	300	5.48	33.92	26.78	131	0.70
248	5.94	33.89	3.08	26.71	400	4.80	34.00	26.92	118	0.82
298	5.50	33.92	2.43	26.78	500	4.48	34.10	27.04	108	0.93
348	5.17	33.95	1.88	26.84	600	4.42	34.19	27.12	101	1.04
397	4.82	33.99	1.50	26.92	700	4.18	34.26	27.20	94	1.14
496	4.49	34.09	0.81	27.04	800	3.78	34.32	27.29	86	1.23
596	4.43	34.19	0.52	27.12	1000	3.33	34.39	27.39	77	1.39
794	3.80	34.31	0.27	27.28						
1040	3.26	34.41	0.29	27.41						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

9

HMCS OSHAWA; July 25, 1958; 0739 GCT; 48°26.5'N, 130°25'W; sounding, 1520 fm; wind, 290°, 8 kt; weather, fog in patches; sea, moderate.

0	16.00	32.26	-	23.67	0	16.00	32.26	23.67	424	0.00
10	16.19	32.25	5.85	23.61	10	16.19	32.25	23.61	429	0.04
20	16.08	32.33	5.84	23.70	20	16.08	32.33	23.70	421	0.09
30	15.26	32.35	6.03	23.89	30	15.26	32.35	23.89	403	0.13
49	10.01	32.45	6.53	24.99	50	9.84	32.46	25.02	296	0.20
74	8.72	32.50	6.35	25.23	75	8.67	32.51	25.24	275	0.27
99	7.47	32.84	5.78	25.68	100	7.44	32.86	25.70	232	0.33
123	7.14	33.31	4.75	26.09	150	7.11	33.68	26.39	167	0.43
148	7.11	33.66	3.47	26.37	200	6.92	33.91	26.60	148	0.51
173	7.18	33.85	2.50	26.51	250	6.36	33.97	26.72	137	0.58
197	6.95	33.91	2.11	26.59	300	6.02	34.00	26.78	132	0.65
249	6.37	33.97	1.69	26.71	400	5.53	34.05	26.88	122	0.78
299	6.03	34.00	1.49	26.78	500	5.13	34.09	26.96	116	0.90
349	5.77	34.03	1.27	26.84	600	4.65	34.16	27.07	106	1.01
398	5.54	34.05	1.13	26.88	700	4.28	34.22	27.16	98	1.12
498	5.14	34.09	0.84	26.96	800	4.02	34.29	27.24	91	1.21
597	4.66	34.16	0.59	27.07	1000	3.53	34.38	27.36	80	1.38
795	4.03	34.28	0.32	27.24						
1036	3.46	34.39	0.28	27.38						

10

HMCS OSHAWA; July 25, 1958; 1402 GCT; 49°02'N, 129°38'W; sounding, 1200 fm; wind, 290°, 10 kt; weather, fog; sea, slight.

0	16.10	32.39	-	23.74	0	16.10	32.39	23.74	417	0.00
10	16.13	32.37	5.71	23.72	10	16.13	32.37	23.72	419	0.04
20	16.15	32.39	5.59	23.73	20	16.15	32.39	23.73	418	0.08
30	16.01	32.39	5.68	23.76	30	16.01	32.39	23.76	416	0.13
50	10.96	32.45	6.63	24.82	50	10.96	32.45	24.82	314	0.20
75	8.84	32.50	6.51	25.21	75	8.84	32.50	25.21	278	0.27
100	7.42	32.68	6.03	25.56	100	7.42	32.68	25.56	245	0.34
125	6.69	33.10	5.40	25.98	150	6.71	33.38	26.21	184	0.45
150	6.71	33.38	4.87	26.21	200	6.44	33.76	26.54	153	0.53
175	6.60	33.63	4.33	26.41	250	5.94	33.89	26.71	138	0.61
200	6.44	33.76	3.91	26.54	300	5.41	33.94	26.81	129	0.67
249	5.95	33.89	3.11	26.70	400	4.84	34.01	26.93	117	0.80
299	5.42	33.94	1.93	26.80	500	4.48	34.15	27.08	104	0.91
348	5.17	33.98	1.77	26.87	600	4.19	34.16	27.12	101	1.01
398	4.85	34.01	1.23	26.93	700	3.98	34.22	27.19	94	1.11
498	4.49	34.15	0.81	27.08	800	3.84	34.33	27.29	86	1.20
597	4.20	34.16	0.57	27.12	1000	3.40	34.41	27.40	76	1.37
796	3.85	34.33	0.30	27.29						
1042	3.30	34.42	0.32	27.42						

11

HMCS OSHAWA; July 25, 1958; 1958 GCT; 49°31'N, 128°52.5'W; sounding, 1240 fm; wind, 290°, 5 kt; weather, fog; sea, slight.

0	14.30	31.90	-	23.76	0	14.30	31.90	23.76	415	0.00
10	13.52	31.90	6.57	23.91	10	13.52	31.90	23.91	400	0.04
20	10.88	32.05	5.71	24.53	20	10.88	32.05	24.53	342	0.08
30	9.54	32.36	5.59	24.99	30	9.54	32.36	24.99	298	0.11
50	8.31	32.48	4.97	25.28	50	8.31	32.48	25.28	271	0.17
75	7.45	33.36	4.75	26.08	75	7.45	33.36	26.08	195	0.23
100	7.12	33.59	3.70	26.31	100	7.12	33.59	26.31	174	0.27
124	6.98	33.78	3.06	26.48	150	6.69	33.86	26.59	148	0.35
149	6.70	33.86	2.90	26.58	200	6.35	33.92	26.68	140	0.43
174	6.55	33.90	2.50	26.63	250	5.96	33.96	26.76	132	0.50
199	6.36	33.92	2.24	26.68	300	5.65	34.00	26.83	127	0.56
249	5.97	33.96	2.09	26.76	400	5.00	34.06	26.96	115	0.68
298	5.66	34.00	1.66	26.83	500	4.69	34.11	27.03	109	0.80
348	5.40	34.02	1.32	26.87	600	4.41	34.18	27.11	102	0.90
398	5.01	34.06	1.10	26.95	700	4.14	34.24	27.19	95	1.00
498	4.70	34.11	0.75	27.03	800	3.89	34.28	27.25	90	1.10
597	4.42	34.18	0.59	27.11	1000	3.44	34.37	27.36	80	1.27
797	3.90	34.28	0.43	27.25						
1044	3.35	34.38	0.43	27.38						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
12	HMCS OSHAWA; July 25, 1958; 2337 GCT; 49°45'N, 128°29.5'W; sounding, 1000 fm; wind, 310°, 15 kt; weather, fog; sea, moderate.									
0	13.50	32.14	-	24.11	0	13.50	32.14	24.11	382	0.00
10	(12.70)a)	32.14	6.65	(24.26)	10	12.70	32.14	24.26	368	0.04
20	11.77	32.17	6.65	24.45	20	11.77	32.17	24.45	349	0.07
30	(10.70)a)	32.42	5.63	(24.85)	30	10.70	32.42	24.85	312	0.11
50	8.14	32.63	5.63	25.42	50	8.14	32.63	25.42	258	0.16
75	7.37	33.15	4.68	25.94	75	7.37	33.15	25.94	209	0.22
100	7.06	33.56	3.81	26.30	100	7.06	33.56	26.30	175	0.27
125	6.83	33.72	3.51	26.46	150	6.77	33.82	26.54	152	0.35
150	6.77	33.82	3.04	26.54	200	6.50	33.94	26.67	141	0.43
175	6.72	33.90	2.71	26.61	250	5.73	33.99	26.81	128	0.50
200	6.50	33.94	2.48	26.67	300	5.61	34.02	26.85	125	0.56
250	5.73	(33.99)a)	2.18	(26.81)	400	5.16	34.06	26.94	117	0.68
300	5.61	(34.02)a)	1.53	(26.85)	500	4.69	34.12	27.03	109	0.80
350	5.38	34.01	1.36	26.87	600	4.29	34.20	27.14	99	0.90
400	5.16	34.06	1.11	26.94	700	4.00	34.26	27.22	92	1.00
500	4.69	34.12	0.74	27.03	800	3.82	34.31	27.28	87	1.09
600	4.29	34.20	0.52	27.14	1000	3.42	34.40	27.39	77	1.25
798	3.82	34.31	0.28	27.28						
1047	3.34	34.42	0.39	27.41						
13	HMCS OSHAWA; July 26, 1958; 0309 GCT; 49°59'N, 128°07'W; sounding, 510 fm; wind, 330°, 12 kt; weather, fog; sea, moderate.									
0	12.70	32.19	-	24.30	0	12.70	32.19	24.30	363	0.00
10	(11.10)a)	32.20	7.01	(24.60)	10	11.10	32.20	24.60	334	0.04
20	9.79	32.29	5.11	24.90	20	9.79	32.29	24.90	307	0.07
30	8.76	32.48	5.12	25.21	30	8.76	32.48	25.21	277	0.10
50	7.80	32.96	4.32	25.72	50	7.80	32.96	25.72	229	0.15
75	7.28	33.37	3.86	26.12	75	7.28	33.37	26.12	192	0.20
100	6.98	33.73	3.37	26.44	100	6.98	33.73	26.44	161	0.24
125	6.71	33.80	3.49	26.54	150	6.55	33.87	26.61	146	0.32
150	6.55	33.87	3.12	26.61	200	6.10	33.94	26.72	136	0.39
175	6.17	33.91	2.69	26.69	250	5.83	33.97	26.78	130	0.46
200	6.10	33.94	2.50	26.72	300	5.45	33.99	26.85	125	0.52
250	5.83	33.97	2.02	26.78	400	4.98	34.07	26.96	115	0.64
300	5.45	33.99	1.57	26.85	500	4.65	34.13	27.05	107	0.76
350	5.20	34.04	1.12	26.91	600	4.43	34.17	27.10	103	0.86
400	4.98	34.07	0.93	26.96	700	4.16	34.23	27.18	96	0.96
500	4.65	34.13	0.69	27.05	800	3.85	34.30	27.27	88	1.06
600	4.43	34.17	0.60	27.10						
800	3.85	34.30	0.37	27.27						
14	HMCS OSHAWA; July 26, 1958; 0437 GCT; 50°07'N, 127°57'W; sounding, 50 fm; wind, 310°, 15 kt; weather, fog; sea, slight.									
0	11.30	32.16	-	24.53	0	11.30	32.16	24.53	341	0.00
10	(11.21)a)	32.65	7.72	(24.93)	10	11.21	32.65	24.93	303	0.03
19	10.37	32.69	6.27	25.11	20	10.23	32.70	25.14	284	0.06
29	8.59	32.89	4.28	25.56	30	8.46	32.92	25.59	241	0.09
48	7.39	33.40	3.53	26.12	50	7.30	33.44	26.17	186	0.13
73	6.87	33.76	2.97	26.48						
15	HMCS OSHAWA; July 26, 1958; 1311 GCT; 51°00'N, 129°00'W; sounding, 40 fm; wind, 340°, 10 kt; weather, shallow fog in patches; sea, smooth.									
0	13.30	31.58	-	23.71	0	13.30	31.58	23.71	420	0.00
10	12.28	31.42	6.38	23.79	10	12.28	31.42	23.79	412	0.04
20	10.22	31.98	5.41	24.58	20	10.22	31.98	24.58	337	0.08
30	9.08	32.29	4.67	25.01	30	9.08	32.29	25.01	296	0.11
40	8.52	32.53	4.44	25.28	50	8.36	32.62	25.38	262	0.17
50	8.36	32.62	4.23	25.38						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

16

HMCS OSHAWA; July 26, 1958; 1751 GCT; 50°40.5'N, 129°30.5'W; sounding, 1040 fm; wind, 330°, 15 kt; weather, missing; sea, moderate.

0	15.40	31.77	-	23.42	0	15.40	31.77	23.42	447	0.00
10	15.35	31.76	6.14	23.43	10	15.35	31.76	23.43	447	0.04
20	12.00	32.11	6.10	24.37	20	12.00	32.11	24.37	357	0.08
30	10.13	32.31	6.08	24.85	30	10.13	32.31	24.85	311	0.12
50	8.59	32.50	6.03	25.25	50	8.59	32.50	25.25	274	0.18
75	7.81	32.81	5.34	25.60	75	7.81	32.81	25.60	240	0.24
100	7.06	33.35	3.57	26.13	100	7.06	33.35	26.13	191	0.30
121	6.77	33.65	3.27	26.41	150	6.63	33.84	26.58	149	0.38
145	6.64	33.82	2.99	26.56	200	6.20	33.91	26.69	139	0.46
169	6.65	33.87	3.23	26.60	250	5.90	33.93	26.74	134	0.52
193	6.28	33.90	2.99	26.67	300	5.57	33.98	26.82	127	0.59
242	5.95	33.92	2.62	26.73	400	4.97	34.05	26.95	116	0.71
290	(5.64)a)	33.97	1.92	(26.81)	500	4.61	34.12	27.04	108	0.82
338	5.33	34.00	1.50	26.87	600	4.28	34.21	27.15	98	0.93
387	5.04	34.04	1.20	26.93	700	4.05	34.26	27.22	92	1.03
484	4.67	34.10	0.78	27.02						
580	4.34	34.19	0.52	27.13						
773	3.95	34.29	0.36	27.25						

17

HMCS OSHAWA; July 26, 1958; 2217 GCT; 50°21'N, 130°00'W; sounding, 1090 fm; wind, 320°, 20 kt; weather, partly cloudy; sea, moderate.

0	15.90	31.89	-	23.40	0	15.90	31.89	23.40	449	0.00
9	16.07	31.86	5.94	23.34	10	16.08	31.86	23.34	455	0.04
19	16.03	31.88	5.87	23.36	20	16.01	31.88	23.37	452	0.09
28	15.82	31.94	5.91	23.46	30	15.57	31.97	23.54	437	0.14
47	10.34	32.38	6.26	24.87	50	9.79	32.43	25.00	298	0.21
71	8.38	32.61	5.92	25.36	75	8.16	32.65	25.43	257	0.28
94	7.49	32.90	5.45	25.72	100	7.36	32.98	25.80	222	0.34
118	7.25	33.21	4.79	25.99	150	6.68	33.58	26.36	169	0.44
141	6.80	33.50	4.44	26.28	200	6.27	33.87	26.65	143	0.52
165	6.55	33.66	4.31	26.45	250	5.90	33.89	26.71	138	0.59
188	6.36	33.82	3.72	26.60	300	5.53	33.91	26.78	132	0.66
233	6.04	33.87	3.45	26.68	400	4.83	34.00	26.92	118	0.78
280	5.64	33.90	2.93	26.75	500	4.56	34.09	27.03	109	0.90
326	5.43	33.94	2.23	26.80	600	4.26	34.16	27.11	102	1.00
373	5.00	33.97	1.62	26.89	700	4.02	34.24	27.20	94	1.10
466	4.67	34.06	1.05	26.99	800	3.81	34.31	27.28	87	1.19
559	4.37	34.13	0.67	27.08						
745	3.94	34.28	0.35	27.24						
978	3.40	34.39	0.36	27.38						

18

HMCS OSHAWA; July 27, 1958; 1756 GCT; 51°00'N, 129°00'W; sounding, 47 fm; wind, 310°, 20 kt; weather, fog; sea, moderate.

0	12.40	31.48	-	23.81	0	12.40	31.48	23.81	410	0.00
10	12.58	31.53	6.08	23.81	10	12.58	31.53	23.81	410	0.04
19	12.26	31.47	6.08	23.83	20	12.16	31.49	23.86	406	0.08
29	10.72	31.83	5.52	24.38	30	10.55	31.87	24.44	351	0.12
39	8.90	32.29	4.72	25.04	50	8.20	32.67	25.44	256	0.18
48	8.30	32.62	4.33	25.38						
68	7.92	32.84	4.05	25.62						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
19	HMCS OSHAWA; July 27, 1958; 2010 GCT; 51°09'N, 129°23'W; sounding, 150 fm; wind, 340°, 25 kt; weather, partly cloudy; sea, very rough.									
0	14.90	31.77	-	23.53	0	14.90	31.77	23.53	437	0.00
10	14.79	31.75	6.14	23.54	10	14.79	31.75	23.54	436	0.04
20	14.64	31.78	6.04	23.59	20	14.64	31.78	23.59	432	0.09
30	11.23	32.09	5.72	24.50	30	11.23	32.09	24.50	345	0.13
50	8.46	32.58	5.36	25.33	50	8.46	32.58	25.33	266	0.19
74	7.25	33.19	4.40	25.98	75	7.21	33.21	26.00	202	0.25
99	6.73	33.58	-	26.36	100	6.72	33.59	26.37	168	0.29
124	6.67	33.74	3.61	26.49	150	6.48	33.80	26.57	150	0.37
148	6.49	33.80	3.10	26.56	200	5.99	33.94	26.74	134	0.44
173	6.43	33.86	2.71	26.62						
193	6.09	33.92	2.45	26.71						
248	5.62	33.96	1.88	26.80						
20	HMCS OSHAWA; July 27, 1958; 2308 GCT; 51°21'N, 129°48'W; sounding, 130 fm; wind, 340°, 25 kt; weather, partly cloudy; sea, very rough.									
0	14.50	31.81	-	23.65	0	14.50	31.81	23.65	426	0.00
10	14.28	31.81	6.25	23.69	10	14.28	31.81	23.69	422	0.04
20	14.20	31.85	6.19	23.74	20	14.20	31.85	23.74	418	0.08
30	13.03	31.86	6.07	23.98	30	13.03	31.86	23.98	395	0.12
50	8.55	32.56	4.86	25.30	50	8.55	32.56	25.30	269	0.19
75	7.32	33.23	3.61	26.00	75	7.32	33.23	26.00	202	0.25
100	6.84	33.53	3.32	26.30	100	6.84	33.53	26.30	174	0.30
125	6.60	33.73	3.24	26.49	150	6.23	33.88	26.66	141	0.38
150	6.23	33.88	2.78	26.66	200	5.65	33.96	26.80	128	0.45
175	5.98	33.94	2.20	26.74						
200	5.65	33.96	2.04	26.80						
21	HMCS OSHAWA; July 28, 1958; 0209 GCT; 51°35'N, 130°19'W; sounding, 225 fm; wind, 310°, 20 kt; weather, partly cloudy; sea, slight.									
0	13.50	31.90	-	23.92	0	13.50	31.90	23.92	400	0.00
10	13.16	31.89	6.34	23.97	10	13.16	31.89	23.97	395	0.04
20	11.53	31.96	5.88	24.34	20	11.53	31.96	24.34	360	0.08
30	9.99	32.17	5.06	24.77	30	9.99	32.17	24.77	319	0.11
50	8.55	32.45	4.44	25.22	50	8.55	32.45	25.22	277	0.17
75	7.87	32.86	3.92	25.64	75	7.87	32.86	25.64	237	0.24
100	7.06	33.35	3.72	26.14	100	7.06	33.35	26.14	190	0.29
125	6.79	33.58	3.56	26.36	150	6.53	33.79	26.55	151	0.38
150	6.53	33.79	3.24	26.55	200	5.97	33.93	26.73	135	0.45
175	6.37	33.92	2.64	26.67	250	5.64	33.96	26.80	129	0.52
200	5.97	33.93	2.18	26.73	300	5.46	33.99	26.84	125	0.58
250	5.64	33.96	1.84	26.80						
300	5.46	33.99	1.69	26.84						
350	5.15	(34.01)a)	1.32	(26.89)						
22	HMCS OSHAWA; July 28, 1958; 0432 GCT; 51°49'N, 130°48'W; sounding, 115 fm; wind, 320°, 15 kt; weather, clear; sea, slight.									
0	13.40	31.83	-	23.88	0	13.40	31.83	23.88	403	0.00
10	13.36	(31.91)b)	6.36	(23.95)	10	13.36	31.91	23.95	397	0.04
20	10.81	(31.99)b)	5.43	(24.49)	20	10.81	31.99	24.49	345	0.08
30	9.67	(32.09)b)	4.80	(24.75)	30	9.67	32.09	24.75	320	0.11
50	9.75	32.29	4.73	24.90	50	9.75	32.29	24.90	307	0.17
75	8.49	32.59	4.33	25.33	75	8.49	32.59	25.33	266	0.25
100	7.67	32.98	4.12	25.76	100	7.67	32.98	25.76	226	0.31
125	6.73	33.54	3.11	26.33	150	6.14	33.86	26.66	141	0.40
150	6.14	33.86	2.48	26.66						
175	5.88	33.93	2.14	26.74						

a) Value extrapolated by three-point parabolic method.
b) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

23

HMCS OSHAWA; July 28, 1958; 1239 GCT; 52°00'N, 132°35'W; sounding, 1900 fm; wind, 340°, 20 kt; weather, overcast; sea, moderate.

0	15.40	32.27	-	23.80	0	15.40	32.27	23.80	411	0.00
10	15.49	32.26	5.77	23.78	10	15.49	32.26	23.78	413	0.04
20	15.48	32.27	5.95	23.79	20	15.48	32.27	23.79	413	0.08
30	13.72	32.36	6.37	24.23	30	13.72	32.36	24.23	371	0.12
50	9.65	32.44	6.45	25.03	50	9.65	32.44	25.03	294	0.19
74	8.04	32.54	6.60	25.36	75	8.00	32.55	25.38	262	0.26
99	7.56	32.79	5.36	25.62	100	7.55	32.80	25.64	238	0.32
124	7.31	33.16	4.45	25.95	150	7.14	33.48	26.23	182	0.43
149	7.15	33.47	3.67	26.22	200	6.63	33.85	26.59	149	0.51
173	7.01	33.69	3.07	26.40	250	5.82	33.98	26.79	130	0.58
198	6.66	33.84	2.34	26.58	300	5.15	34.05	26.93	117	0.64
248	5.85	33.97	1.71	26.78	400	4.60	34.13	27.06	105	0.76
298	5.17	34.05	1.13	26.92	500	4.33	34.19	27.13	99	0.86
347	4.90	34.09	0.96	26.99	600	4.07	34.24	27.19	94	0.96
397	4.61	34.13	0.74	27.05	700	3.84	34.28	27.25	89	1.05
496	4.34	34.19	0.57	27.13	800	3.64	34.32	27.30	84	1.14
595	4.08	34.23	0.40	27.19	1000	3.25	34.40	27.40	76	1.30
794	3.65	34.32	0.38	27.30						
1042	3.17	34.41	0.36	27.42						

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HMCS OSHAWA; July 28, 1958; 2138 GCT; 52°00'N, 135°00'W; sounding, missing; wind, 320°, 5 kt; weather, cloudy; sea, missing.

0	16.70	32.40	-	23.61	0	16.70	32.40	23.61	429	0.00
10	16.30	32.39	5.96	23.70	10	16.30	32.39	23.70	421	0.04
20	15.69	32.42	6.10	23.86	20	15.69	32.42	23.86	406	0.08
30	12.15	32.45	7.30	24.61	30	12.15	32.45	24.61	335	0.12
50	9.51	32.50	7.02	25.10	50	9.51	32.50	25.10	288	0.18
75	7.82	32.55	6.61	25.40	75	7.82	32.55	25.40	260	0.25
100	7.04	32.70	6.22	25.63	100	7.04	32.70	25.63	239	0.32
125	6.70	33.11	5.15	25.99	150	6.67	33.45	26.27	178	0.42
149	6.69	33.44	4.29	26.26	200	5.94	33.77	26.61	146	0.50
174	5.86	33.50	5.12	26.41	250	5.51	33.88	26.75	133	0.57
199	5.94	33.76	4.44	26.61	300	5.12	33.92	26.83	126	0.64
247	5.53	33.87	3.27	26.74	400	4.45	33.98	26.95	115	0.76
296	(5.15)a)	33.92	2.39	(26.82)	500	4.34	34.09	27.05	106	0.87
346	4.81	33.94	1.94	26.88	600	4.10	34.19	27.16	97	0.98
395	4.47	33.97	1.50	26.94	700	3.84	34.26	27.23	90	1.07
494	4.35	34.09	1.52	27.05	800	3.55	34.29	27.29	86	1.16
593	4.12	34.19	0.87	27.15	1000	3.18	34.37	27.39	77	1.32
790	3.57	34.28	0.54	27.28						
1037	3.13	34.39	0.38	27.41						

25

HMCS OSHAWA; July 29, 1958; 0620 GCT; 52°00'N, 137°00'W; sounding, missing; wind, 210°, 10 kt; weather, intermittent moderate rain; sea, slight.

0	15.90	32.46	-	23.84	0	15.90	32.46	23.84	408	0.00
10	15.95	32.44	5.97	23.81	10	15.95	32.44	23.81	410	0.04
19	15.47	32.43	6.05	23.91	20	15.26	32.43	23.96	396	0.08
29	11.91	32.49	7.52	24.68	30	11.63	32.49	24.73	323	0.12
49	8.78	32.47	6.80	25.19	50	8.67	32.47	25.21	278	0.18
73	7.60	32.56	6.33	25.44	75	7.54	32.57	25.45	255	0.24
98	7.27	32.76	5.79	25.64	100	7.25	32.78	25.66	236	0.31
124	7.20	33.11	4.64	25.93	150	7.13	33.56	26.29	176	0.41
148	7.13	33.54	3.46	26.27	200	6.87	33.80	26.52	156	0.49
173	7.16	33.72	3.00	26.41	250	6.33	33.90	26.67	142	0.57
198	6.89	33.80	2.82	26.51	300	5.84	33.95	26.77	133	0.64
248	6.35	33.90	2.53	26.66	400	5.25	33.99	26.87	123	0.77
297	5.86	33.95	2.16	26.76	500	4.69	34.06	26.99	113	0.89
347	5.55	33.95	1.86	26.80	600	4.31	34.12	27.08	105	1.00
396	5.27	33.99	1.53	26.87	700	3.98	34.19	27.17	97	1.10
495	4.71	34.06	1.09	26.98	800	3.71	34.26	27.25	90	1.19
594	4.33	34.12	0.71	27.07	1000	3.21	34.35	27.37	79	1.36
792	3.73	34.25	0.45	27.24						
1037	3.13	34.36	0.45	27.38						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
34	HMCS OSHAWA; July 29, 1958; 1738 GCT; 54°02.5'N, 136°57'W; sounding, missing; wind, 220°, 10 kt; weather, fog in patches; sea, smooth.									
0	15.70	31.98	-	23.51	0	15.70	31.98	23.51	438	0.00
10	15.72	31.96	5.85	23.50	10	15.72	31.96	23.50	440	0.04
20	15.20	31.98	5.86	23.62	20	15.20	31.98	23.62	428	0.09
30	12.79	31.98	6.45	24.12	30	12.79	31.98	24.12	381	0.13
49	8.69	32.08	5.87	24.91	50	8.55	32.09	24.93	304	0.20
74	7.52	32.36	5.62	25.29	75	7.49	32.37	25.31	269	0.27
99	7.04	32.54	5.51	25.50	100	7.02	32.55	25.51	249	0.33
123	6.66	32.80	4.95	25.76	150	6.55	33.15	26.04	200	0.45
148	6.55	33.12	4.20	26.02	200	6.42	33.60	26.42	165	0.54
172	6.66	33.37	3.74	26.21	250	6.15	33.85	26.65	143	0.62
192	6.48	33.54	3.49	26.36	300	5.49	33.87	26.74	134	0.69
241	6.24	33.83	3.05	26.62	400	4.68	33.96	26.91	119	0.82
289	5.61	33.86	2.74	26.72	500	4.37	34.03	27.00	112	0.93
337	5.16	33.90	2.22	26.81	600	4.13	34.09	27.07	105	1.04
385	4.77	33.95	1.71	26.89	700	3.88	34.17	27.16	98	1.14
481	4.43	34.02	1.12	26.98	800	3.63	34.25	27.25	90	1.24
578	4.19	34.07	0.84	27.05	1000	3.26	34.34	27.36	80	1.41
770	3.70	34.23	0.46	27.22						
1004	3.25	34.35	0.38	27.36						
35	HMCS OSHAWA; July 29, 1958; 2308 GCT; 54°00'N, 135°36'W; sounding, missing; wind, 240°, 15 kt; weather, cloudy; sea, slight.									
0	15.30	31.91	-	23.55	0	15.30	31.91	23.55	435	0.00
10	15.02	31.90	6.24	23.60	10	15.02	31.90	23.60	430	0.04
20	13.48	32.14	6.50	24.11	20	13.48	32.14	24.11	382	0.08
30	10.83	32.36	6.62	24.77	30	10.83	32.36	24.77	319	0.12
50	8.67	32.49	6.14	25.23	50	8.67	32.49	25.23	276	0.18
75	7.34	32.64	6.16	25.54	75	7.34	32.64	25.54	246	0.24
100	6.73	32.97	5.44	25.88	100	6.73	32.97	25.88	214	0.30
125	6.49	33.33	4.46	26.19	150	6.70	33.52	26.31	174	0.40
149	6.69	33.51	3.84	26.31	200	6.50	33.79	26.56	152	0.48
174	6.80	33.70	3.33	26.44	250	5.77	33.93	26.76	133	0.55
199	6.51	33.79	3.04	26.55	300	5.28	33.96	26.84	126	0.62
249	5.78	33.92	2.45	26.75	400	4.61	34.03	26.97	113	0.74
299	5.29	33.95	2.11	26.84	500	4.28	34.10	27.06	106	0.85
349	4.95	33.98	1.56	26.90	600	3.99	34.14	27.13	100	0.95
398	4.62	34.03	1.13	26.97	700	3.75	34.19	27.19	94	1.05
498	4.29	34.09	0.86	27.06						
597	4.00	34.14	0.66	27.12						
797	3.57	34.26	0.53	27.26						
36	HMCS OSHAWA; July 30, 1958; 0216 GCT; 54°00'N, 134°50'W; sounding, 1500 fm; wind, 230°, 10 kt; weather, overcast; sea, smooth.									
0	15.20	31.93	-	23.59	0	15.20	31.93	23.59	431	0.00
10	15.32	31.91	5.98	23.54	10	15.32	31.91	23.54	436	0.04
20	(12.87)a)	31.97	6.34	(24.10)	20	12.87	31.97	24.10	383	0.08
30	10.98	32.04	6.03	24.50	30	10.98	32.04	24.50	345	0.12
50	8.92	32.22	5.36	24.98	50	8.92	32.22	24.98	300	0.19
75	8.07	32.56	5.26	25.37	75	8.07	32.56	25.37	262	0.26
100	6.83	32.81	5.41	25.74	100	6.83	32.81	25.74	228	0.32
125	6.35	33.36	4.29	26.24	150	6.27	33.55	26.40	166	0.42
150	6.27	33.55	3.85	26.40	200	5.87	33.80	26.65	143	0.49
175	6.35	33.73	3.19	26.52	250	5.43	33.90	26.78	131	0.56
199	5.89	33.80	3.09	26.64	300	4.99	33.91	26.83	126	0.63
248	5.45	33.90	2.42	26.77	400	4.57	33.98	26.94	116	0.75
298	5.00	33.91	2.24	26.83	500	4.28	34.08	27.04	107	0.86
348	4.83	33.93	1.87	26.87	600	3.98	34.16	27.14	99	0.97
398	4.58	33.98	1.41	26.94	700	3.75	34.22	27.21	92	1.06
497	4.29	34.07	0.84	27.04	800	3.59	34.26	27.26	88	1.16
596	3.99	34.15	0.58	27.14	1000	3.20	34.36	27.37	78	1.32
795	3.60	34.26	0.43	27.26						
1042	3.12	34.37	0.38	27.40						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

37

HMCS OSHAWA; July 30, 1958; 0459 GCT; 54°00'N, 134°20'W; sounding, 1500 fm; wind, 240°, 12 kt; weather, overcast; sea, smooth.

0	15.70	32.29	-	23.76	0	15.70	32.29	23.76	415	0.00
10	16.06	32.27	5.70	23.66	10	16.06	32.27	23.66	425	0.04
20	(15.03)a)	32.34	6.13	(23.94)	20	15.03	32.34	23.94	398	0.08
30	13.58	32.32	6.24	24.22	30	13.58	32.32	24.22	372	0.12
50	9.42	32.36	6.53	25.01	50	9.42	32.36	25.01	296	0.19
75	7.28	32.59	6.33	25.51	75	7.28	32.59	25.51	250	0.26
100	6.65	32.84	5.54	25.79	100	6.65	32.84	25.79	223	0.32
122	6.76	33.27	4.23	26.11	150	6.73	33.62	26.39	166	0.42
146	6.74	33.58	3.38	26.36	200	6.42	33.81	26.59	149	0.50
171	6.69	33.78	2.93	26.52	250	5.76	33.91	26.74	134	0.57
195	6.47	33.81	2.98	26.57	300	5.29	33.93	26.82	128	0.63
244	5.83	33.90	2.58	26.73	400	4.83	34.02	26.94	117	0.76
292	5.34	33.92	2.20	26.81	500	4.26	34.07	27.04	107	0.87
341	5.13	33.97	1.62	26.87	600	4.13	34.18	27.14	98	0.97
390	4.88	34.01	1.27	26.93	700	3.87	34.26	27.23	91	1.07
488	4.30	34.06	0.65	27.03	800	3.55	34.30	27.30	85	1.16
585	4.16	34.17	0.56	27.13	1000	3.15	34.38	27.40	76	1.32
780	3.60	34.29	0.40	27.29						
1022	3.12	34.38	0.37	27.40						

38

HMCS OSHAWA; July 30, 1958; 0801 GCT; 53°58'N, 133°46'W; sounding, 650 fm; wind, 200°, 10 kt; weather, drizzle; sea, smooth.

0	14.80	31.95	-	23.69	0	14.80	31.95	23.69	422	0.00
10	14.90	31.94	6.46	23.66	10	14.90	31.94	23.66	425	0.04
19	11.13	32.31	6.85	24.68	20	10.85	32.33	24.75	321	0.08
29	9.50	32.42	6.29	25.04	30	9.37	32.43	25.07	290	0.11
48	8.25	32.69	5.66	25.45	50	8.13	32.71	25.48	252	0.16
72	6.90	32.91	5.28	25.81	75	6.80	32.95	25.86	216	0.22
97	6.50	33.36	4.45	26.21	100	6.50	33.40	26.25	180	0.27
121	6.72	33.64	3.34	26.41	150	6.56	33.80	26.56	151	0.36
145	6.59	33.78	2.99	26.54	200	5.89	33.91	26.73	135	0.43
169	6.46	33.85	2.62	26.61	250	5.65	33.94	26.78	131	0.50
193	5.99	33.90	2.32	26.71	300	5.41	33.95	26.82	127	0.56
248	5.66	33.94	1.97	26.78	400	4.88	34.02	26.93	117	0.68
297	5.42	33.95	1.83	26.82	500	4.49	34.10	27.04	108	0.80
347	5.23	33.98	1.52	26.86	600	4.10	34.18	27.15	98	0.90
396	4.90	34.02	1.23	26.93	700	3.83	34.24	27.22	92	1.00
496	4.51	34.10	0.72	27.04	800	3.68	34.28	27.27	88	1.09
595	4.12	34.18	0.50	27.14	1000	3.26	34.36	27.37	79	1.26
793	3.69	34.28	0.35	27.26						
1040	3.18	34.37	0.36	27.39						

39

HMCS OSHAWA; July 30, 1958; 0926 GCT; 53°59.5'N, 133°31'W; sounding, 95 fm; wind, 210°, 10 kt; weather, moderate rain; sea, slight.

0	14.00	32.05	-	23.93	0	14.00	32.05	23.93	398	0.00
10	14.03	32.08	6.35	23.95	10	14.03	32.08	23.95	397	0.04
19	12.00	32.27	6.31	24.49	20	11.82	32.28	24.54	341	0.08
29	10.60	32.33	6.54	24.79	30	10.46	32.34	24.82	314	0.11
48	8.17	32.53	5.40	25.33	50	7.99	32.55	25.37	262	0.17
72	7.04	32.82	5.52	25.72	75	6.94	32.86	25.76	225	0.23
97	6.42	33.14	4.93	26.05	100	6.38	33.18	26.09	194	0.28
121	6.34	33.50	3.74	26.35						
145	6.54	33.68	2.95	26.46						

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HMCS OSHAWA; July 30, 1958; 1034 GCT; 53°57'N, 133°18.5'W; sounding, 37 fm; wind, 210°, 8 kt; weather, overcast; sea, smooth.

0	13.10	32.118	-
10	12.23	32.229	6.60
19	11.36	32.343	6.69
29	10.66	32.417	6.54
39	8.99	32.637	5.82
48	7.90	32.801	5.38

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
41	HMCS OSHAWA; August 1, 1958; 0828 GCT; 54°20'N, 133°00'W; sounding, 250 fm; wind, 070°, 5 kt; weather, overcast; sea, smooth.									
0	11.40	31.45	-	23.97	0	11.40	31.45	23.97	395	0.00
10	11.34	32.14	6.29	24.51	10	11.34	32.14	24.51	344	0.04
20	(10.71)a)	32.37	5.82	(24.80)	20	10.71	32.37	24.80	316	0.07
30	9.82	32.49	5.63	25.04	30	9.82	32.49	25.04	293	0.10
50	7.25	32.94	4.13	25.79	50	7.25	32.94	25.79	222	0.15
75	6.82	33.19	3.82	26.04	75	6.82	33.19	26.04	199	0.21
100	6.66	33.27	3.60	26.12	100	6.66	33.27	26.12	191	0.26
125	6.59	33.31	3.49	26.17	150	6.39	33.43	26.28	177	0.35
150	6.39	33.43	3.29	26.28	200	6.14	33.55	26.41	165	0.43
175	6.40	33.50	3.06	26.34	250	5.78	33.73	26.60	148	0.51
200	6.14	33.55	3.01	26.41	300	5.67	33.78	26.65	143	0.59
246	5.80	33.72	2.72	26.59						
296	5.68	33.78	2.54	26.65						
345	5.58	33.83	2.30	26.70						
42	HMCS OSHAWA; August 1, 1958; 1131 GCT; 54°40'N, 133°30'W; sounding, 170 fm; wind, 190°, 8 kt; weather, cloudy; sea, missing.									
0	12.60	32.08	-	24.23	0	12.60	32.08	24.23	370	0.00
10	11.08	32.22	5.91	24.62	10	11.08	32.22	24.62	333	0.04
20	9.68	32.34	5.49	24.95	20	9.68	32.34	24.95	302	0.07
30	9.41	32.41	5.05	25.05	30	9.41	32.41	25.05	293	0.10
50	8.73	32.60	5.17	25.30	50	8.73	32.60	25.30	269	0.15
75	7.15	32.68	5.84	25.60	75	7.15	32.68	25.60	241	0.22
100	6.78	32.99	4.97	25.89	100	6.78	32.99	25.89	214	0.28
125	6.67	33.14	4.58	26.02	150	6.35	33.44	26.30	175	0.37
150	6.35	33.44	3.70	26.30	200	5.93	33.67	26.53	154	0.46
175	6.28	33.55	3.27	26.40	250	5.52	33.83	26.71	137	0.53
200	5.93	33.67	2.97	26.53						
250	5.52	33.83	2.37	26.71						
43	HMCS OSHAWA; August 1, 1958; 1511 GCT; 55°00'N, 134°00'W; sounding, 82 fm; wind, 190°, 12 kt; weather, moderate rain showers; sea, smooth.									
0	15.50	32.02	-	23.59	0	15.50	32.02	23.59	431	0.00
10	15.62	32.06	5.82	23.60	10	15.62	32.06	23.60	431	0.04
20	15.67	32.06	5.82	23.58	20	15.67	32.06	23.58	432	0.09
30	14.82	32.08	5.97	23.78	30	14.82	32.08	23.78	414	0.13
50	9.46	32.33	5.98	24.98	50	9.46	32.33	24.98	299	0.20
75	7.12	32.59	6.29	25.53	75	7.12	32.59	25.53	247	0.27
100	6.90	32.87	4.95	25.78	100	6.90	32.87	25.78	224	0.33
125	6.49	33.17	4.11	26.07						
44	HMCS OSHAWA; August 1, 1958; 1912 GCT; 55°00.5'N, 135°02.5'W; sounding, missing; wind, 220°, 5 kt; weather, cloudy; sea, calm.									
0	15.20	32.04	-	23.67	0	15.20	32.04	23.67	424	0.00
10	15.32	32.04	5.95	23.65	10	15.32	32.04	23.65	426	0.04
20	14.46	32.08	6.17	23.86	20	14.46	32.08	23.86	406	0.08
30	12.22	32.15	6.62	24.36	30	12.22	32.15	24.36	358	0.12
50	8.17	32.39	5.68	25.22	50	8.17	32.39	25.22	276	0.19
75	7.26	32.64	5.63	25.55	75	7.26	32.64	25.55	246	0.25
100	6.96	32.90	4.98	25.79	100	6.96	32.90	25.79	223	0.31
125	6.87	33.17	4.33	26.01	150	6.85	33.44	26.24	181	0.41
150	6.85	33.44	3.63	26.24	200	6.64	33.73	26.49	158	0.50
175	6.80	33.67	3.05	26.42	250	6.31	32.84	25.83	220	0.59
198	6.65	33.73	2.81	26.49	300	5.79	33.92	26.75	134	0.68
248	6.33	32.84	2.58	25.83	400	4.76	33.96	26.90	120	0.81
297	5.82	33.89	2.52	26.72	500	4.31	34.03	27.01	111	0.93
347	5.33	33.92	2.17	26.80	600	3.98	34.14	27.12	100	1.04
396	4.79	33.95	1.69	26.89	700	3.74	34.21	27.21	93	1.13
496	4.33	34.03	1.11	27.00	800	3.61	34.25	27.25	89	1.22
595	3.99	34.13	0.66	27.12	1000	3.68	34.35	27.32	84	1.40
793	3.62	34.25	0.53	27.25						
1040	(3.74)b)	34.36	0.44	(27.33)						

a) Value interpolated by three-point parabolic method.

b) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	σ_t g/L	δ cl/ton	ΔD dyn m

45

HMCS OSHAWA; August 1, 1958; 2318 GCT; 55°00.5'N, 136°00'W; sounding, missing; wind, 220°, 5 kt; weather, cloudy; sea, calm.

0	15.60	32.11	-	23.64	0	15.60	32.11	23.64	426	0.00
10	15.52	32.06	5.98	23.62	10	15.52	32.06	23.62	428	0.04
20	15.40	32.07	6.00	23.65	20	15.40	32.07	23.65	426	0.09
30	14.95	32.09	6.03	23.77	30	14.95	32.09	23.77	415	0.13
50	10.45	32.31	6.33	24.80	50	10.45	32.31	24.80	316	0.20
75	8.52	32.43	6.08	25.21	75	8.52	32.43	25.21	278	0.28
100	7.09	32.61	5.97	25.55	100	7.09	32.61	25.55	246	0.34
125	6.55	32.75	5.69	25.73	150	6.46	33.05	25.97	206	0.46
149	6.46	33.04	4.87	25.97	200	6.21	33.40	26.28	177	0.55
174	6.46	33.23	4.29	26.12	250	5.62	33.75	26.64	144	0.63
199	6.22	33.39	3.83	26.28	300	4.81	33.97	26.91	119	0.70
242	5.73	33.70	2.82	26.58	400	4.22	34.08	27.05	105	0.81
291	4.92	33.95	1.74	26.87	500	3.98	34.16	27.14	98	0.92
339	4.44	34.04	1.01	27.00	600	3.76	34.21	27.20	92	1.01
388	4.26	34.07	0.84	27.04	700	3.55	34.26	27.27	87	1.10
485	4.02	34.15	0.62	27.13	800	3.34	34.32	27.33	81	1.19
582	3.80	34.20	0.52	27.19	1000	2.99	34.40	27.43	72	1.34
776	3.39	34.31	0.41	27.32						
1019	2.96	34.41	0.43	27.44						

46

HMCS OSHAWA; August 2, 1958; 0206 GCT; 55°17'N, 136°17'W; sounding, 1500 fm; wind, 130°, 8 kt; weather, cloudy; sea, smooth.

0	15.20	31.92	-	23.58	0	15.20	31.92	23.58	432	0.00
10	14.94	31.90	5.85	23.62	10	14.94	31.90	23.62	428	0.04
20	12.79	32.03	6.19	24.16	20	12.79	32.03	24.16	377	0.08
30	10.66	32.24	6.42	24.71	30	10.66	32.24	24.71	325	0.12
50	8.04	32.33	5.72	25.20	50	8.04	32.33	25.20	278	0.18
75	7.04	32.50	5.92	25.47	75	7.04	32.50	25.47	253	0.25
100	6.54	32.65	5.98	25.65	100	6.54	32.65	25.65	236	0.31
125	6.19	33.05	4.85	26.01	150	6.25	33.41	26.29	176	0.41
150	6.25	33.41	4.16	26.29	200	6.28	33.83	26.61	146	0.49
175	6.36	33.64	3.63	26.46	250	5.41	33.84	26.73	135	0.56
200	6.28	33.83	2.91	26.61	300	5.05	33.91	26.82	127	0.63
250	5.41	33.84	2.84	26.73	400	4.36	33.98	26.96	114	0.75
299	5.06	33.90	2.26	26.82	500	4.22	34.08	27.05	106	0.86
349	4.66	33.94	1.69	26.90	600	3.94	34.16	27.14	98	0.96
399	4.36	33.98	1.38	26.96	700	3.70	34.22	27.22	92	1.06
499	4.22	34.08	0.86	27.05	800	3.50	34.28	27.28	86	1.15
599	3.94	34.16	0.59	27.14	1000	3.13	34.36	27.39	77	1.32
798	3.50	34.28	0.43	27.28						
1048	3.06	34.38	0.38	27.41						

47

HMCS OSHAWA; August 2, 1958; 0733 GCT; 56°00'N, 137°00'W; sounding, 1270 fm; wind, calm; weather, partly cloudy; sea, calm.

0	15.30	31.90	-	23.55	0	15.30	31.90	23.55	435	0.00
10	15.12	31.88	5.94	23.57	10	15.12	31.88	23.57	434	0.04
20	10.82	32.06	6.73	24.54	20	10.82	32.06	24.54	341	0.08
30	(8.18)a)	32.15	5.84	(25.03)	30	8.18	32.15	25.03	294	0.11
50	7.88	32.36	5.69	25.24	50	7.88	32.36	25.24	274	0.17
75	7.12	32.54	5.90	25.49	75	7.12	32.54	25.49	251	0.24
100	6.46	32.71	5.61	25.71	100	6.46	32.71	25.71	231	0.30
125	6.20	33.02	4.83	25.99	150	6.13	33.36	26.27	178	0.40
150	6.13	33.36	4.04	26.27	200	5.79	33.78	26.63	144	0.48
175	6.03	33.62	3.54	26.48	250	5.30	33.87	26.77	131	0.55
200	5.79	33.78	3.08	26.63	300	5.00	33.92	26.85	124	0.62
250	5.30	33.87	2.56	26.77	400	4.39	33.98	26.96	114	0.74
300	5.00	33.92	1.95	26.85	500	4.18	34.10	27.07	104	0.85
350	4.59	33.93	1.70	26.90	600	3.88	34.17	27.16	96	0.95
400	4.39	33.98	1.28	26.96	700	3.65	34.23	27.23	90	1.04
500	4.18	34.10	0.72	27.07	800	3.49	34.28	27.29	86	1.13
599	3.88	34.17	0.54	27.16	1000	3.11	34.37	27.39	76	1.30
799	3.49	34.28	0.50	27.29						
1049	3.02	34.39	0.44	27.42						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
48	HMCS OSHAWA; August 2, 1958; 1135 GCT; 56°19'N, 136°10'W; sounding, missing; wind, 040°, 5 kt; weather, partly cloudy; sea, smooth.									
0	14.80	31.88	-	23.63	0	14.80	31.88	23.63	427	0.00
10	15.08	31.86	5.89	23.56	10	15.08	31.86	23.56	434	0.04
20	14.13	31.89	6.29	23.78	20	14.13	31.89	23.78	413	0.09
30	(12.57)a)	32.15	-	(24.29)	30	12.57	32.15	24.29	365	0.12
50	7.64	32.39	5.76	25.30	50	7.64	32.39	25.30	269	0.19
75	7.16	32.53	6.05	25.48	75	7.16	32.53	25.48	252	0.25
100	6.45	32.69	5.64	25.70	100	6.45	32.69	25.70	232	0.32
125	6.14	32.97	5.00	25.95	150	6.11	33.29	26.21	183	0.42
150	6.11	33.29	4.23	26.21	200	5.77	33.74	26.61	146	0.50
174	6.06	33.58	3.63	26.45	250	5.39	33.87	26.76	133	0.57
199	5.78	33.73	3.21	26.60	300	5.02	33.92	26.84	125	0.64
245	5.43	33.86	2.60	26.74	400	4.47	34.02	26.98	113	0.76
294	5.06	33.91	1.99	26.83	500	4.16	34.10	27.07	104	0.87
343	4.75	33.96	1.48	26.90	600	3.86	34.17	27.16	96	0.97
392	4.50	34.01	1.14	26.97	700	3.62	34.24	27.24	89	1.06
490	4.19	34.09	0.81	27.07	800	3.45	34.30	27.31	84	1.15
588	3.89	34.16	0.55	27.15	1000	3.07	34.38	27.41	75	1.31
784	3.48	34.29	0.46	27.30						
1030	3.02	34.39	0.40	27.42						
49	HMCS OSHAWA; August 2, 1958; 1334 GCT; 56°30'N, 135°40'W; sounding, 107 fm; wind, 180°, 5 kt; weather, cloudy; sea, calm.									
0	13.20	31.26	-	23.48	0	13.20	31.26	23.48	442	0.00
10	13.54	31.28	6.53	23.43	10	13.54	31.28	23.43	446	0.04
20	11.84	31.42	6.36	23.86	20	11.84	31.42	23.86	405	0.09
30	9.64	31.74	5.86	24.49	30	9.64	31.74	24.49	346	0.12
50	8.15	32.26	5.06	25.13	50	8.15	32.26	25.13	286	0.19
75	7.11	32.58	5.21	25.52	75	7.11	32.58	25.52	248	0.26
100	6.70	32.79	4.16	25.74	100	6.70	32.79	25.74	227	0.32
125	5.77	33.37	3.14	26.32	150	5.48	33.53	26.47	158	0.41
150	5.48	33.53	2.64	26.47						
50	HMCS OSHAWA; August 2, 1958; 1515 GCT; 56°35'N, 135°26'W; sounding, 60 fm; wind, 360°, 8 kt; weather, cloudy; sea, calm.									
0	13.70	31.62	-	23.66	0	13.70	31.62	23.66	424	0.00
10	13.64	31.62	6.24	23.67	10	13.64	31.62	23.67	423	0.04
20	9.65	31.72	5.82	24.47	20	9.65	31.72	24.47	347	0.08
30	8.58	32.06	5.25	24.90	30	8.58	32.06	24.90	306	0.11
50	8.11	32.26	4.93	25.13	50	8.11	32.26	25.13	285	0.17
75	7.01	32.55	4.93	25.51	75	7.01	32.55	25.51	249	0.24
51	HMCS OSHAWA; August 4, 1958; 0000 GCT; 57°00'N, 137°00'W; sounding, 1200 fm; wind, 160°, 15 kt; weather, cloudy; sea, slight.									
0	14.50	32.17	-	23.92	0	14.50	32.17	23.92	399	0.00
10	14.76	32.17	6.17	23.86	10	14.76	32.17	23.86	405	0.04
20	11.76	32.19	7.04	24.48	20	11.76	32.19	24.48	347	0.08
30	9.02	32.22	6.40	24.96	30	9.02	32.22	24.96	301	0.11
50	7.50	32.39	5.96	25.32	50	7.50	32.39	25.32	267	0.17
75	6.85	32.53	6.14	25.52	75	6.85	32.53	25.52	248	0.23
100	6.27	32.66	6.19	25.69	100	6.27	32.66	25.69	232	0.29
125	6.26	32.91	5.28	25.89	150	6.21	33.19	26.12	192	0.40
150	6.21	33.19	4.36	26.12	200	5.96	33.72	26.57	150	0.49
174	6.02	33.47	3.66	26.36	250	5.31	33.81	26.72	136	0.56
199	5.97	33.72	3.25	26.56	300	5.08	33.91	26.82	127	0.62
237	5.43	33.78	2.91	26.68	400	4.44	34.00	26.97	114	0.75
284	5.18	33.89	2.33	26.79	500	4.16	34.08	27.06	106	0.86
332	4.85	33.94	1.83	26.87	600	3.96	34.15	27.14	99	0.96
379	4.54	33.98	1.33	26.94	700	3.76	34.21	27.21	93	1.06
474	4.23	34.06	0.88	27.04	800	3.56	34.27	27.27	88	1.15
568	4.03	34.13	0.60	27.12						
758	3.64	34.24	0.48	27.24						
995	3.23	34.38	0.36	27.39						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

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HMCS OSHAWA; August 4, 1958; 0754 GCT; 57°01.5'N, 138°59.5'W; sounding, 1750 fm; wind, 160°, 25 kt; weather, intermittent moderate rain; sea, rough.

0	14.40	32.00	-	23.81	0	14.40	32.00	23.81	410	0.00
10	14.56	31.98	6.04	23.77	10	14.56	31.98	23.77	415	0.04
20	14.61	31.99	6.04	23.76	20	14.61	31.99	23.76	415	0.08
30	10.19	32.04	8.02	24.64	30	10.19	32.04	24.64	332	0.12
50	7.69	32.15	6.32	25.11	50	7.69	32.15	25.11	287	0.18
75	7.41	32.24	6.14	25.22	75	7.41	32.24	25.22	277	0.25
100	7.12	32.36	6.07	25.35	100	7.12	32.36	25.35	265	0.32
125	6.95	32.47	6.05	25.46	150	6.67	32.61	25.60	241	0.45
149	6.68	32.60	5.97	25.60	200	6.54	32.95	25.89	215	0.56
174	6.52	32.73	5.75	25.72	250	6.42	33.53	26.36	171	0.66
201	6.54	32.96	4.86	25.89	300	6.04	33.79	26.61	147	0.74
251	6.42	33.54	3.53	26.37	400	5.10	33.92	26.83	127	0.88
301	6.03	33.79	2.89	26.62	500	4.55	34.00	26.95	116	1.00
351	5.55	33.87	2.56	26.74	600	4.18	34.07	27.05	107	1.12
402	5.08	33.92	2.00	26.83	700	3.90	34.15	27.14	99	1.22
502	4.54	34.00	1.22	26.95	800	3.72	34.22	27.22	92	1.32
602	4.17	34.07	-	27.05	1000	3.35	34.32	27.33	82	1.49
803	3.72	34.22	0.49	27.22						
1052	3.27	34.34	0.39	27.35						

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HMCS OSHAWA; August 4, 1958; 1524 GCT; 57°05'N, 140°53'W; sounding, 1750 fm; wind, 160°, 8 kt; weather, overcast; sea, smooth.

0	13.30	32.51	-	24.43	0	13.30	32.51	24.43	351	0.00
10	13.31	32.50	6.20	24.42	10	13.31	32.50	24.42	353	0.04
20	12.81	32.51	6.44	24.52	20	12.81	32.51	24.52	343	0.07
30	10.57	32.55	7.26	24.97	30	10.57	32.55	24.97	300	0.10
50	7.20	32.59	7.07	25.52	50	7.20	32.59	25.52	248	0.16
75	6.17	32.65	6.97	25.70	75	6.17	32.65	25.70	231	0.22
100	5.32	32.70	6.83	25.84	100	5.32	32.70	25.84	218	0.27
125	4.87	32.93	6.10	26.07	150	4.77	33.23	26.32	172	0.37
150	4.77	33.23	5.15	26.32	200	4.30	33.66	26.71	136	0.45
175	4.76	33.51	4.08	26.55	250	4.10	33.83	26.87	121	0.52
202	4.24	33.67	3.29	26.72	300	4.09	33.92	26.94	115	0.58
252	4.12	33.83	2.22	26.87	400	4.20	34.05	27.04	107	0.69
303	4.09	33.92	1.47	26.94	500	3.96	34.12	27.11	100	0.79
354	4.20	33.99	1.06	26.99	600	3.75	34.18	27.18	94	0.89
404	4.19	34.06	0.84	27.04	700	3.58	34.24	27.25	89	0.98
505	3.94	34.12	0.66	27.11	800	3.43	34.28	27.29	85	1.07
606	3.74	34.19	0.49	27.19	1000	3.13	34.35	27.38	78	1.23
808	3.42	34.28	0.39	27.30						
1060	3.04	34.37	0.44	27.40						

54

HMCS OSHAWA; August 4, 1958; 2031 GCT; 57°46'N, 140°59'W; sounding, 1800 fm; wind, 180°, 12 kt; weather, cloudy; sea, moderate.

0	14.10	31.86	-	23.76	0	14.10	31.86	23.76	415	0.00
10	14.17	31.82	6.22	23.72	10	14.17	31.82	23.72	419	0.04
20	13.27	32.11	6.61	24.13	20	13.27	32.11	24.13	380	0.08
30	8.26	32.28	6.13	25.12	30	8.26	32.28	25.12	286	0.12
50	7.16	32.43	6.04	25.40	50	7.16	32.43	25.40	260	0.17
75	6.47	32.60	6.66	25.62	75	6.47	32.60	25.62	239	0.23
100	5.68	32.67	6.59	25.77	100	5.68	32.67	25.77	224	0.29
125	6.09	33.03	5.03	26.01	150	5.69	33.30	26.27	178	0.39
150	5.69	33.30	4.59	26.27	200	5.57	33.75	26.64	143	0.47
175	5.51	33.53	4.04	26.48	250	5.02	33.87	26.80	128	0.54
202	5.59	33.76	3.06	26.65	300	4.74	33.93	26.88	121	0.60
252	4.98	33.87	2.70	26.80	400	4.39	34.02	26.99	111	0.72
302	4.74	33.94	1.71	26.88	500	4.07	34.12	27.10	101	0.83
353	4.60	33.98	1.32	26.94	600	3.81	34.18	27.18	95	0.93
404	4.37	34.03	1.06	27.00	700	3.59	34.23	27.24	90	1.02
504	4.06	34.13	0.69	27.11	800	3.40	34.28	27.30	84	1.11
605	3.80	34.18	0.52	27.18						
807	3.39	34.28	0.44	27.30						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
55	HMCS OSHAWA; August 5, 1958; 0152 GCT; 58°30'N, 141°00'W; sounding, 1815 fm; wind, 130°, 10 kt; weather, moderate rain showers; sea, moderate.									
0	14.10	32.24	-	24.06	0	14.10	32.24	24.06	386	0.00
10	14.22	32.24	6.13	24.03	10	14.22	32.24	24.03	389	0.04
20	10.38	32.26	7.13	24.77	20	10.38	32.26	24.77	318	0.07
30	8.75	32.43	7.18	25.17	30	8.75	32.43	25.17	281	0.10
50	7.02	32.50	6.51	25.47	50	7.02	32.50	25.47	252	0.16
75	6.36	32.59	6.56	25.63	75	6.36	32.59	25.63	238	0.22
100	5.67	32.69	6.61	25.79	100	5.67	32.69	25.79	223	0.28
125	5.65	32.93	5.62	25.99	150	5.76	33.36	26.31	174	0.38
150	5.76	33.36	4.19	26.31	200	5.50	33.77	26.66	141	0.46
175	5.78	33.65	3.46	26.54	250	5.11	33.87	26.79	130	0.52
202	5.47	33.77	3.11	26.67	300	4.64	33.90	26.87	122	0.59
252	5.10	33.87	2.36	26.79	400	4.42	34.02	26.98	112	0.71
302	4.62	33.90	1.88	26.87	500	4.11	34.09	27.08	104	0.82
353	4.56	33.97	1.34	26.93	600	3.91	34.15	27.14	98	0.92
404	4.40	34.02	1.08	26.99	700	3.71	34.21	27.21	92	1.02
504	4.10	34.09	0.68	27.08	800	3.50	34.27	27.28	86	1.10
605	3.90	34.15	0.56	27.15	1000	3.15	34.36	27.38	77	1.27
807	3.48	34.28	0.40	27.28						
1059	3.06	34.38	0.38	27.40						
56	HMCS OSHAWA; August 5, 1958; 0407 GCT; 58°42.5'N, 140°45'W; sounding, 150 fm; wind, 160°, 12 kt; weather, moderate rain showers; sea, slight.									
0	14.20	32.05	-	23.89	0	14.20	32.05	23.89	403	0.00
10	14.32	32.03	6.13	23.85	10	14.32	32.03	23.85	406	0.04
20	10.71	32.17	7.35	24.65	20	10.71	32.17	24.65	331	0.08
30	9.10	32.34	6.62	25.04	30	9.10	32.34	25.04	293	0.11
49	7.05	32.48	5.96	25.45	50	6.98	32.49	25.47	253	0.16
74	6.31	32.62	6.55	25.66	75	6.29	32.63	25.67	234	0.22
99	5.88	32.72	6.27	25.79	100	5.87	32.73	25.80	222	0.28
123	5.71	33.10	5.05	26.11	150	5.62	33.46	26.40	165	0.38
148	5.62	33.43	4.00	26.38	200	5.37	33.84	26.74	134	0.46
172	5.67	33.73	3.09	26.61						
197	5.40	33.83	2.77	26.73						
246	4.90	33.89	2.15	26.83						
57	HMCS OSHAWA; August 5, 1958; 0615 GCT; 58°55'N, 140°30'W; sounding, 95 fm; wind, 100°, 15 kt; weather, drizzle; sea, moderate.									
0	13.90	31.99	-	23.90	0	13.90	31.99	23.90	401	0.00
10	14.10	32.00	6.40	23.87	10	14.10	32.00	23.87	405	0.04
20	11.69	32.34	7.49	24.60	20	11.69	32.34	24.60	335	0.08
30	9.78	32.47	6.82	25.03	30	9.78	32.47	25.03	294	0.11
50	7.47	32.49	6.28	25.40	50	7.47	32.49	25.40	259	0.16
75	6.64	32.59	6.08	25.59	75	6.64	32.59	25.59	241	0.23
100	6.14	32.70	5.95	25.74	100	6.14	32.70	25.74	227	0.29
125	5.88	32.99	5.23	26.01	150	5.82	33.38	26.32	173	0.39
150	5.82	33.38	4.01	26.32						
58	HMCS OSHAWA; August 5, 1958; 0815 GCT; 59°07.5'N, 140°15'W; sounding, 65 fm; wind, 100°, 15 kt; weather, drizzle; sea, moderate.									
0	13.60	31.86	-	23.87	0	13.60	31.86	23.87	405	0.00
10	13.77	31.86	6.31	23.84	10	13.77	31.86	23.84	408	0.04
20	13.74	31.91	6.38	23.88	20	13.74	31.91	23.88	404	0.08
30	7.52	32.12	5.81	25.10	30	7.52	32.12	25.10	287	0.12
50	7.21	32.27	5.68	25.27	50	7.21	32.27	25.27	272	0.17
75	7.00	32.45	5.76	25.44	75	7.00	32.45	25.44	256	0.24
100	6.50	32.61	5.97	25.63	100	6.50	32.61	25.63	238	0.30

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

59

HMCS OSHAWA; August 5, 1958; 0919 GCT; 59°16'N, 140°05'W; sounding, 68 fm; wind, 100°, 25 kt; weather, moderate rain; sea, very rough.

0	13.40	31.67	-	23.76	0	13.40	31.67	23.76	415	0.00
10	13.50	31.68	6.40	23.75	10	13.50	31.68	23.75	416	0.04
20	13.49	31.67	6.35	23.75	20	13.49	31.67	23.75	417	0.08
30	9.52	32.03	6.53	24.73	30	9.52	32.03	24.73	323	0.12
50	7.20	32.23	5.76	25.24	50	7.20	32.23	25.24	275	0.18
75	7.18	32.38	5.92	25.36	75	7.18	32.38	25.36	264	0.25
100	6.68	32.53	5.95	25.54	100	6.68	32.53	25.54	247	0.31

60

HMCS OSHAWA; August 5, 1958; 1059 GCT; 59°25'N, 139°54'W; sounding, 95 fm; wind, 110°, 25 kt; weather, moderate rain; sea, very rough.

0	13.50	30.14	-	22.56	0	13.50	30.14	22.56	530	0.00
10	13.24	30.95	6.19	23.24	10	13.24	30.95	23.24	465	0.05
20	13.28	31.48	6.28	23.64	20	13.28	31.48	23.64	427	0.10
30	10.11	31.60	6.04	24.31	30	10.11	31.60	24.31	363	0.13
50	7.99	32.16	5.96	25.07	50	7.99	32.16	25.07	291	0.20
75	7.46	32.34	5.96	25.29	75	7.46	32.34	25.29	270	0.27
100	6.98	32.46	5.98	25.45	100	6.98	32.46	25.45	255	0.34
125	6.38	32.61	6.12	25.65	150	6.06	32.82	25.85	218	0.46
150	6.06	32.82	5.14	25.85						

61

HMCS OSHAWA; August 5, 1958; 1545 GCT; 59°46'N, 141°30'W; sounding, 22 fm; wind, 070°, 20 kt; weather, intermittent moderate rain; sea, moderate.

0	12.70	23.55	-	17.64	0	12.70	23.55	17.64	1002	0.00
10	12.60	25.28	6.50	18.99	10	12.60	25.28	18.99	872	0.09
20	13.34	29.71	6.19	22.26	20	13.34	29.71	22.26	558	0.16
30	7.01	31.36	6.17	24.58	30	7.01	31.36	24.58	337	0.21

62

HMCS OSHAWA; August 5, 1958; 1758 GCT; 59°31'N, 141°50.5'W; sounding, 90 fm; wind, 070°, 20 kt; weather, intermittent moderate rain; sea, rough.

0	13.40	32.17	-	24.15	0	13.40	32.17	24.15	378	0.00
10	13.58	32.19	6.33	24.13	10	13.58	32.19	24.13	380	0.04
20	13.51	32.21	6.41	24.15	20	13.51	32.21	24.15	378	0.08
30	9.24	32.42	7.40	25.08	30	9.24	32.42	25.08	289	0.11
50	6.97	32.53	6.48	25.51	50	6.97	32.53	25.51	249	0.16
75	6.05	32.67	6.29	25.73	75	6.05	32.67	25.73	228	0.22
100	5.60	32.78	6.08	25.88	100	5.60	32.78	25.88	214	0.28
125	5.78	33.20	4.57	26.18	150	5.69	33.50	26.43	163	0.38
150	5.69	33.50	3.76	26.43						

63

HMCS OSHAWA; August 5, 1958; 2052 GCT; 59°15.5'N, 142°10'W; sounding, 510 fm; wind, 090°, 30 kt; weather, internittent moderate rain; sea, very rough.

0	13.40	32.23	-	24.19	0	13.40	32.23	24.19	373	0.00
10	13.30	32.27	6.47	24.24	10	13.30	32.27	24.24	369	0.04
20	10.82	32.35	7.58	24.77	20	10.82	32.35	24.77	319	0.07
30	7.70	32.42	6.91	25.32	30	7.70	32.42	25.32	267	0.10
50	6.56	32.57	6.56	25.59	50	6.56	32.57	25.59	241	0.15
75	5.94	32.67	6.29	25.75	75	5.94	32.67	25.75	226	0.21
100	5.65	32.83	5.94	25.90	100	5.65	32.83	25.90	212	0.27
125	6.05	33.25	4.52	26.19	150	5.96	33.58	26.46	160	0.36
149	5.96	33.56	3.66	26.45	200	5.60	33.85	26.72	136	0.44
174	5.99	33.79	2.95	26.62	250	5.21	33.90	26.80	128	0.50
201	5.58	33.85	2.67	26.72	300	4.87	33.93	26.86	123	0.56
252	5.20	33.90	2.24	26.80	400	4.34	33.99	26.97	113	0.68
302	4.86	33.93	1.79	26.87	500	4.10	34.08	27.07	104	0.79
352	4.60	33.96	1.50	26.91	600	3.87	34.15	27.15	98	0.90
403	4.32	33.99	1.13	26.97	700	3.67	34.20	27.21	93	0.99
503	4.10	34.09	0.69	27.07	800	3.52	34.25	27.26	88	1.08
604	3.86	34.15	0.58	27.15						
855	3.46	34.27	0.43	27.28						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
64	HMCS OSHAWA; August 6, 1958; 0234 GCT; 58°38'N, 143°03'W; sounding, 1826 fm; wind, 110°, 10 kt; weather, moderate rain showers; sea, slight.									
0	13.30	31.91	-	23.96	0	13.30	31.91	23.96	395	0.00
10	13.34	31.92	6.34	23.96	10	13.34	31.92	23.96	396	0.04
20	8.85	32.50	7.30	25.20	20	8.85	32.50	25.20	278	0.07
30	7.78	32.53	6.82	25.39	30	7.78	32.53	25.39	260	0.10
50	6.71	32.61	6.72	25.60	50	6.71	32.61	25.60	240	0.15
75	5.82	32.67	6.78	25.76	75	5.82	32.67	25.76	225	0.21
100	5.22	32.71	6.80	25.86	100	5.22	32.71	25.86	216	0.26
125	5.36	33.11	5.22	26.16	150	5.15	33.46	26.46	159	0.36
150	5.15	33.46	4.05	26.46	200	4.78	33.79	26.76	132	0.43
175	5.15	33.66	3.33	26.61	250	4.40	33.89	26.88	120	0.50
202	4.74	33.79	2.62	26.77	300	4.34	33.96	26.95	114	0.56
252	4.40	33.89	1.66	26.89	400	4.15	34.05	27.04	106	0.67
302	4.34	33.97	1.16	26.95	500	3.91	34.13	27.13	99	0.77
353	4.26	34.01	0.91	27.00	600	3.70	34.19	27.20	93	0.87
403	4.14	34.06	0.75	27.04	700	3.52	34.24	27.25	88	0.96
504	3.90	34.14	0.57	27.13	800	3.39	34.28	27.30	84	1.04
604	3.69	34.19	0.45	27.20						
806	3.38	34.29	0.35	27.30						
65	HMCS OSHAWA; August 6, 1958; 0822 GCT; 58°00'N, 143°50'W; sounding, 1955 fm; wind, 150°, 5 kt; weather, overcast; sea, calm.									
0	12.20	32.53	-	24.66	0	12.20	32.53	24.66	329	0.00
10	12.23	32.54	6.33	24.66	10	12.23	32.54	24.66	329	0.03
20	12.16	32.55	6.45	24.68	20	12.16	32.55	24.68	328	0.07
30	10.95	32.62	6.83	24.95	30	10.95	32.62	24.95	302	0.10
50	6.95	32.69	7.37	25.63	50	6.95	32.69	25.63	238	0.15
75	5.84	32.70	7.09	25.78	75	5.84	32.70	25.78	223	0.21
100	5.14	32.77	6.99	25.91	100	5.14	32.77	25.91	211	0.26
124	4.67	33.04	5.67	26.18	150	4.52	33.38	26.47	158	0.36
149	4.52	33.37	4.58	26.46	200	4.55	33.80	26.80	128	0.43
174	4.66	33.71	3.30	26.72	250	4.31	33.89	26.89	119	0.49
199	4.55	33.80	2.99	26.79	300	4.14	33.95	26.96	114	0.55
249	4.31	33.89	1.96	26.89	400	3.99	34.04	27.05	106	0.66
299	4.14	33.94	1.30	26.95	500	3.93	34.16	27.14	97	0.76
348	4.11	34.00	0.99	27.00	600	3.70	34.21	27.21	92	0.86
398	3.99	34.04	0.84	27.05	700	3.51	34.26	27.27	86	0.95
498	3.93	34.15	0.57	27.14	800	3.34	34.30	27.32	82	1.03
597	3.71	34.21	0.46	27.21	1000	2.99	34.38	27.41	74	1.19
796	3.35	34.30	0.38	27.32						
1043	2.91	34.40	0.49	27.43						
66	HMCS OSHAWA; August 6, 1958; 1309 GCT; 58°00'N, 145°00'W; sounding, missing; wind, 080°, 5 kt; weather, overcast; sea, smooth.									
0	13.00	32.06	-	24.14	0	13.00	32.06	24.14	378	0.00
10	13.44	32.06	6.24	24.05	10	13.44	32.06	24.05	387	0.04
20	12.38	32.49	7.19	24.59	20	12.38	32.49	24.59	336	0.08
30	10.42	32.63	6.81	25.05	30	10.42	32.63	25.05	292	0.11
50	6.86	32.65	7.17	25.61	50	6.86	32.65	25.61	240	0.16
75	5.66	32.68	7.04	25.79	75	5.66	32.68	25.79	223	0.22
100	5.16	32.74	6.85	25.89	100	5.16	32.74	25.89	213	0.27
125	4.70	32.92	6.37	26.09	150	4.86	33.27	26.34	170	0.37
150	4.86	33.27	4.96	26.34	200	4.11	33.57	26.66	140	0.45
175	4.66	33.41	4.45	26.47	250	3.95	33.85	26.90	118	0.51
200	4.11	33.57	3.57	26.66	300	3.97	33.92	26.95	114	0.57
252	3.97	33.86	1.83	26.90	400	3.91	34.04	27.05	105	0.68
302	3.97	33.92	1.12	26.95	500	3.77	34.12	27.13	98	0.78
353	3.98	33.99	0.72	27.01	600	3.66	34.19	27.20	92	0.88
403	3.90	34.04	0.60	27.05	700	3.50	34.26	27.27	87	0.97
504	3.77	34.12	0.48	27.13	800	3.30	34.31	27.33	82	1.06
605	3.65	34.20	0.47	27.21						
806	3.29	34.31	0.39	27.33						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

67

HMCS OSHAWA; August 6, 1958; 1826 GCT; 58°27'N, 146°02'W; sounding, missing; wind, 080°, 10 kt; weather, overcast; sea, smooth.

0	12.80	31.83	-	24.01	0	12.80	31.83	24.01	391	0.00
10	12.94	31.82	6.20	23.96	10	12.94	31.82	23.96	396	0.04
20	11.58	32.00	7.39	24.36	20	11.58	32.00	24.36	358	0.08
30	7.42	32.22	6.19	25.20	30	7.42	32.22	25.20	278	0.11
50	6.91	32.33	6.24	25.35	50	6.91	32.33	25.35	264	0.16
75	6.58	32.50	6.26	25.53	75	6.58	32.50	25.53	247	0.23
100	5.98	32.63	6.34	25.71	100	5.98	32.63	25.71	231	0.29
125	5.69	32.81	5.89	25.89	150	5.99	33.20	26.16	188	0.39
150	5.99	33.20	4.52	26.16	200	5.92	33.72	26.58	149	0.48
175	6.31	33.56	3.34	26.40	250	5.40	33.86	26.75	133	0.55
201	5.89	33.73	2.99	26.58	300	4.86	33.91	26.85	124	0.62
251	5.39	33.86	2.48	26.75	400	4.23	33.96	26.96	114	0.74
301	4.85	33.91	1.99	26.85	500	4.13	34.08	27.06	105	0.85
351	4.57	(33.94)a)	1.67	(26.90)	600	3.90	34.15	27.14	98	0.95
402	4.21	33.96	1.27	26.96	700	3.67	34.21	27.22	92	1.04
502	4.14	34.08	0.71	27.06	800	3.47	34.27	27.28	86	1.14
602	3.89	34.15	0.53	27.14	1000	3.09	34.35	27.38	77	1.30
803	3.46	34.27	0.38	27.28						
1052	3.00	34.37	0.44	27.41						

68

HMCS OSHAWA; August 6, 1958; 2359 GCT; 58°55'N, 147°10'W; sounding, 1270 fm; wind, 040°, 10 kt; weather, cloudy; sea, slight.

0	12.20	32.51	-	24.64	0	12.20	32.51	24.64	331	0.00
10	11.86	32.56	6.42	24.74	10	11.86	32.56	24.74	321	0.03
20	10.92	32.64	6.52	24.97	20	10.92	32.64	24.97	300	0.06
30	9.66	32.66	6.78	25.20	30	9.66	32.66	25.20	278	0.09
50	6.36	32.71	7.13	25.72	50	6.36	32.71	25.72	228	0.14
75	5.18	32.77	6.87	25.91	75	5.18	32.77	25.91	211	0.20
100	4.48	33.03	5.82	26.20	100	4.48	33.03	26.20	184	0.25
124	4.40	33.41	4.28	26.51	150	4.52	33.70	26.72	135	0.33
149	4.52	33.69	3.16	26.71	200	4.61	33.92	26.88	120	0.39
174	4.56	33.82	2.32	26.81	250	4.30	33.92	26.92	117	0.45
198	4.61	33.91	1.85	26.88	300	4.19	33.96	26.96	113	0.51
252	4.28	33.91	1.52	26.92	400	4.05	34.06	27.05	105	0.62
302	4.19	33.96	1.08	26.96	500	3.81	34.13	27.13	98	0.72
352	4.15	34.02	0.81	27.01	600	3.64	34.19	27.20	92	0.82
403	4.04	34.06	0.68	27.06	700	3.49	34.25	27.26	87	0.91
503	3.80	34.13	0.39	27.14	800	3.33	34.29	27.31	83	1.00
604	3.64	34.19	0.38	27.20	1000	2.97	34.38	27.42	74	1.16
805	3.32	34.30	0.37	27.32						
1057	2.86	34.41	0.43	27.45						

69

HMCS OSHAWA; August 7, 1958; 0142 GCT; 59°05'N, 147°12'W; sounding, 750 fm; wind, 040°, 15 kt; weather, overcast, precipitation near ship; sea, slight.

0	12.40	32.47	-	24.58	0	12.40	32.47	24.58	337	0.00
10	12.22	32.47	6.46	24.61	10	12.22	32.47	24.61	334	0.03
20	11.84	32.55	6.50	24.74	20	11.84	32.55	24.74	322	0.07
30	8.52	32.65	6.23	25.37	30	8.52	32.65	25.37	262	0.10
50	5.94	32.69	6.16	25.76	50	5.94	32.69	25.76	225	0.14
75	5.30	32.77	6.42	25.90	75	5.30	32.77	25.90	212	0.20
100	4.60	32.95	6.05	26.12	100	4.60	32.95	26.12	191	0.25
125	5.29	33.44	3.92	26.43	150	5.01	33.66	26.63	143	0.34
150	5.01	33.66	3.19	26.63	200	5.12	33.89	26.80	128	0.40
175	5.52	33.84	2.56	26.72	250	4.69	33.92	26.87	121	0.47
200	5.12	33.89	2.15	26.80	300	4.40	33.95	26.93	116	0.53
248	4.70	33.92	1.62	26.87	400	4.07	34.04	27.04	107	0.64
298	4.41	33.95	1.27	26.93	500	3.80	34.12	27.13	99	0.74
348	4.32	34.00	0.96	26.98	600	3.74	34.17	27.18	95	0.84
397	4.08	34.03	0.59	27.03	700	3.62	34.22	27.23	91	0.93
497	3.80	34.12	0.45	27.13	800	3.45	34.26	27.27	87	1.02
596	3.74	34.17	0.38	27.18	1000	3.16	34.34	27.37	79	1.19
795	3.46	34.25	0.35	27.27						
1042	3.10	34.36	0.36	27.39						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
70	HMCS OSHAWA; August 7, 1958; 0348 GCT; 59°12'N, 147°25.5'W; sounding, 220 fm; wind, 040°, 15 kt; weather, cloudy; sea, slight.									
0	13.00	31.81	-	23.94	0	13.00	31.81	23.94	397	0.00
10	13.09	31.80	6.33	23.92	10	13.09	31.80	23.92	400	0.04
20	11.31	32.09	7.11	24.48	20	11.31	32.09	24.48	346	0.08
30	7.72	32.31	6.15	25.22	30	7.72	32.31	25.22	276	0.11
50	6.88	32.50	6.38	25.49	50	6.88	32.50	25.49	251	0.16
75	6.53	32.64	6.81	25.65	75	6.53	32.64	25.65	236	0.22
100	5.78	32.68	6.36	25.77	100	5.78	32.68	25.77	224	0.28
125	5.65	33.05	5.24	26.08	150	5.24	33.41	26.41	164	0.38
150	5.24	33.41	4.14	26.41	200	5.30	33.63	26.58	149	0.46
199	5.30	33.63	3.35	26.58	250	5.14	33.67	26.63	145	0.53
249	5.14	33.66	3.19	26.62	300	4.96	33.84	26.78	130	0.60
299	4.97	33.84	2.43	26.78						
348	4.59	33.91	1.72	26.88						
71	HMCS OSHAWA; August 7, 1958; 0532 GCT; 59°23'N, 147°31.5'W; sounding, 64 fm; wind, 360°, 4 kt; weather, partly cloudy; sea, smooth.									
0	12.60	31.90	-	24.09	0	12.60	31.90	24.09	383	0.00
10	12.41	31.91	6.48	24.14	10	12.41	31.91	24.14	379	0.04
20	11.12	32.17	7.08	24.57	20	11.12	32.17	24.57	338	0.07
30	8.11	32.14	6.14	25.04	30	8.11	32.14	25.04	294	0.11
50	6.64	32.44	6.06	25.47	50	6.64	32.44	25.47	252	0.16
75	6.15	32.66	5.80	25.71	75	6.15	32.66	25.71	230	0.22
100	5.86	32.83	5.49	25.88	100	5.86	32.83	25.88	214	0.28
72	HMCS OSHAWA; August 7, 1958; 0654 GCT; 59°31'N, 147°40'W; sounding, 57 fm; wind, calm; weather, partly cloudy; sea, calm.									
0	12.20	31.31	-	23.71	0	12.20	31.31	23.71	419	0.00
10	11.60	31.33	6.85	23.84	10	11.60	31.33	23.84	408	0.04
20	8.60	32.03	6.48	24.88	20	8.60	32.03	24.88	308	0.08
30	7.40	32.14	6.17	25.14	30	7.40	32.14	25.14	284	0.11
50	6.70	32.39	6.25	25.42	50	6.70	32.39	25.42	257	0.16
75	6.39	32.51	5.97	25.56	75	6.39	32.51	25.56	244	0.22
73	HMCS OSHAWA; August 7, 1958; 0819 GCT; 59°40'N, 147°50'W; sounding, 43 fm; wind, calm; weather, partly cloudy; sea, calm.									
0	11.70	30.68	-	23.32	0	11.70	30.68	23.32	457	0.00
10	(11.75)a)	30.89	6.31	(23.47)	10	11.75	30.89	23.47	443	0.04
20	11.76	31.28	6.46	23.77	20	11.76	31.28	23.77	414	0.09
30	11.73	31.58	6.56	24.01	30	11.73	31.58	24.01	392	0.13
50	7.47	32.08	5.85	25.08	50	7.47	32.08	25.08	290	0.20
70	6.68	32.24	5.73	25.31						
74	HMCS OSHAWA; August 7, 1958; 1111 GCT; 59°17.5'N, 148°25'W; sounding, missing; wind, calm; weather, partly cloudy; sea, calm.									
0	11.30	31.93		24.36	0	11.30	31.93	24.36	358	0.00
10	11.13	31.94		24.39	10	11.13	31.94	24.39	355	0.04
20	10.60	32.01		24.54	20	10.60	32.01	24.54	341	0.07
30	10.05	32.11		24.71	30	10.05	32.11	24.71	324	0.10
50	8.31	32.30		25.13	50	8.31	32.30	25.13	285	0.16
75	6.93	32.53		25.51	75	6.93	32.53	25.51	249	0.23

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	σ_t g/L	δ cl/ton	ΔD dyn m

75

HMCS OSHAWA; August 7, 1958; 1413 GCT; 58°55'N, 149°00'W; sounding, 140 fm; wind, 210°, 5 kt; weather, cloudy; sea, smooth.

0	12.10	32.20	-	24.42	0	12.10	32.20	24.42	352	0.00
10	12.18	32.23	7.06	24.43	10	12.18	32.23	24.43	352	0.04
20	9.88	32.37	6.89	24.94	20	9.88	32.37	24.94	303	0.07
30	8.24	32.45	6.59	25.26	30	8.24	32.45	25.26	272	0.10
50	6.79	32.51	6.50	25.51	50	6.79	32.51	25.51	249	0.15
75	6.54	32.62	6.63	25.63	75	6.54	32.62	25.63	238	0.21
100	5.69	32.77	6.24	25.85	100	5.69	32.77	25.85	217	0.27
125	5.52	33.13	4.96	26.15	150	5.41	33.46	26.43	162	0.36
150	5.41	33.46	3.77	26.43	200	5.11	33.75	26.69	138	0.44
175	5.42	33.63	3.26	26.56						
200	5.11	33.75	2.72	26.69						

76

HMCS OSHAWA; August 7, 1958; 1829 GCT; 58°23'N, 149°49'W; sounding, 66 fm; wind, 300°, 25 kt; weather, cloudy; sea, rough.

0	11.70	31.62	-	24.05	0	11.70	31.62	24.05	388	0.00
10	11.80	31.61	6.62	24.02	10	11.80	31.61	24.02	390	0.04
20	9.68	31.91	6.60	24.61	20	9.68	31.91	24.61	334	0.08
30	8.64	32.09	6.42	24.92	30	8.64	32.09	24.92	305	0.11
50	6.72	32.24	6.16	25.30	50	6.72	32.24	25.30	268	0.16
75	6.47	32.43	5.90	25.49	75	6.47	32.43	25.49	251	0.23
100	6.10	32.61	5.76	25.67	100	6.10	32.61	25.67	234	0.29

77

HMCS OSHAWA; August 7, 1958; 2235 GCT; 58°10'N, 149°01.5'W; sounding, 95 fm; wind, 290°, 15 kt; weather, cloudy; sea, rough.

0	12.20	32.50	-	24.64	0	12.20	32.50	24.64	331	0.00
10	11.56	32.55	6.87	24.79	10	11.56	32.55	24.79	317	0.03
19	9.46	32.63	6.85	25.22	20	9.19	32.64	25.27	272	0.06
29	6.46	32.74	6.85	25.73	30	6.26	32.74	25.76	225	0.09
48	5.78	32.78	6.73	25.85	50	5.72	32.78	25.86	216	0.13
73	5.22	32.88	6.42	25.99	75	5.20	32.91	26.02	201	0.18
97	5.12	33.49	3.82	26.49	100	5.11	33.53	26.52	153	0.23
121	5.10	33.58	3.34	26.56						
145	5.06	33.61	3.24	26.59						

82

HMCS OSHAWA; August 8, 1958; 0955 GCT; 56°58.5'N, 150°58.5'W; sounding, 450 fm; wind, 240°, 5 kt; weather, partly cloudy; sea, smooth.

0	11.20	32.30	-	24.66	0	11.20	32.30	24.66	329	0.00
10	10.62	32.31	7.18	24.77	10	10.62	32.31	24.77	319	0.03
20	10.05	32.29	6.96	24.85	20	10.05	32.29	24.85	311	0.06
30	(9.06)a)	32.44	6.64	(25.13)	30	9.06	32.44	25.13	285	0.09
49	6.01	32.67	6.60	25.73	50	5.92	32.67	25.75	226	0.15
74	5.60	32.74	6.66	25.84	75	5.58	32.75	25.85	217	0.20
99	4.90	33.02	5.69	26.14	100	4.88	33.03	26.15	188	0.25
123	4.73	33.26	5.41	26.35	150	4.71	33.57	26.60	146	0.34
148	4.70	33.55	5.34	26.58	200	4.53	33.83	26.82	125	0.40
172	4.86	33.75	2.71	26.73	250	4.18	33.94	26.95	114	0.46
197	4.56	33.82	2.27	26.81	300	4.12	33.99	26.99	110	0.52
246	4.20	33.93	1.21	26.94	400	3.99	34.09	27.09	102	0.63
295	4.12	33.98	0.90	26.99	500	3.84	34.15	27.15	96	0.73
345	4.14	34.03	0.72	27.02	600	3.62	34.20	27.21	91	0.82
394	4.00	34.09	0.63	27.08						
492	3.85	34.15	0.49	27.15						
591	3.64	34.20	0.40	27.21						
690	3.48	34.26	0.39	27.27						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
83	HMCS OSHAWA; August 8, 1958; 1130 GCT; 57°10'N, 151°10'W; sounding, 260 fm; wind, 220°, 8 kt; weather, clear; sea, smooth.									
0	11.30	32.16	-	24.54	0	11.30	32.16	24.54	341	0.00
10	11.33	32.15	6.96	24.52	10	11.33	32.15	24.52	342	0.03
20	11.13	32.18	6.85	24.58	20	11.13	32.18	24.58	337	0.07
30	8.84	32.45	6.83	25.17	30	8.84	32.45	25.17	281	0.10
50	6.52	32.62	6.62	25.63	50	6.52	32.62	25.63	237	0.15
75	5.81	32.72	6.41	25.80	75	5.81	32.72	25.80	222	0.21
100	5.32	32.91	5.90	26.00	100	5.32	32.91	26.00	202	0.26
125	5.04	33.19	5.12	26.26	150	5.00	33.51	26.51	154	0.35
150	5.00	33.51	3.98	26.51	200	4.58	33.75	26.76	132	0.42
175	5.07	33.66	3.33	26.62	250	4.40	33.90	26.89	119	0.49
200	4.58	33.75	2.87	26.76	300	4.28	33.99	26.97	112	0.55
249	4.40	33.90	1.78	26.89						
299	4.28	33.98	1.22	26.97						
349	4.26	33.99	0.88	26.98						
398	4.04	34.05	0.72	27.05						
84	HMCS OSHAWA; August 8, 1958; 1315 GCT; 57°12.5'N, 151°16.5'W; sounding, 70 fm; wind, calm; weather, clear; sea, calm.									
0	10.70	32.05	-	24.55	0	10.70	32.05	24.55	339	0.00
10	10.40	32.03	7.27	24.59	10	10.40	32.03	24.59	336	0.03
20	9.94	32.03	7.27	24.67	20	9.94	32.03	24.67	328	0.07
30	9.55	32.08	6.74	24.77	30	9.55	32.08	24.77	319	0.10
50	7.42	32.33	6.05	25.28	50	7.42	32.33	25.28	271	0.16
75	6.57	32.55	5.62	25.57	75	6.57	32.55	25.57	244	0.22
100	5.98	32.78	5.11	25.82	100	5.98	32.78	25.82	219	0.28
85	HMCS OSHAWA; August 8, 1958; 1453 GCT; 57°20'N, 151°22'W; sounding, 78 fm; wind, calm; weather, clear; sea, calm.									
0	10.60	32.07	-	24.59	0	10.60	32.07	24.59	336	0.00
10	10.12	32.07	7.28	24.67	10	10.12	32.07	24.67	328	0.03
20	9.67	32.12	6.75	24.78	20	9.67	32.12	24.78	318	0.07
30	8.64	32.23	6.31	25.03	30	8.64	32.23	25.03	295	0.10
50	7.54	32.32	5.72	25.26	50	7.54	32.32	25.26	273	0.15
75	7.26	32.41	5.69	25.37	75	7.26	32.41	25.37	263	0.22
100	6.52	32.56	5.71	25.58	100	6.52	32.56	25.58	242	0.28
125	6.04	32.72	5.58	25.77						
86	HMCS OSHAWA; August 8, 1958; 1634 GCT; 57°28'N, 151°32'W; sounding, 69 fm; wind, 210°, 5 kt; weather, partly cloudy; sea, calm.									
0	10.90	32.06	-	24.53	0	10.90	32.06	24.53	342	0.00
10	10.66	32.04	7.24	24.55	10	10.66	32.04	24.55	339	0.03
20	10.04	32.10	6.98	24.71	20	10.04	32.10	24.71	325	0.07
30	8.30	(32.18)a)	6.13	(25.04)	30	8.30	32.18	25.04	294	0.10
50	7.45	32.36	5.73	25.30	50	7.45	32.36	25.30	269	0.16
75	7.17	32.42	5.48	25.39	75	7.17	32.42	25.39	261	0.22
100	7.00	32.47	5.33	25.45	100	7.00	32.47	25.45	255	0.29
87	HMCS OSHAWA; August 8, 1958; 1853 GCT; 57°36'N, 151°49'W; sounding, 81 fm; wind, calm; weather, cloudy; sea, calm.									
0	9.80	32.08	-	24.73	0	9.80	32.08	24.73	322	0.00
10	9.61	32.07	7.73	24.75	10	9.61	32.07	24.75	320	0.03
20	9.47	32.06	7.57	24.77	20	9.47	32.06	24.77	319	0.06
30	9.24	32.09	6.88	24.82	30	9.24	32.09	24.82	314	0.10
50	8.52	32.19	6.31	25.02	50	8.52	32.19	25.02	296	0.16
75	8.04	32.28	5.96	25.16	75	8.04	32.28	25.16	283	0.23
100	7.32	32.42	5.48	25.37	100	7.32	32.42	25.37	263	0.30
125	6.83	32.55	5.06	25.53						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	σ_t g/L	δ cl/ton	ΔD dyn m

88

HMCS OSHAWA; August 10, 1958; 0023 GCT; 55°55'N, 154°52'W; sounding, 140 fm; wind, 290°, 30 kt; weather, partly cloudy; sea, very rough.

0	10.60	32.04	-	24.56	0	10.60	32.04	24.56	338	0.00
10	10.60	32.02	6.80	24.55	10	10.60	32.02	24.55	340	0.03
20	10.62	32.02	6.79	24.54	20	10.62	32.02	24.54	340	0.07
30	10.00	32.05	6.69	24.67	30	10.00	32.05	24.67	329	0.10
49	7.08	32.39	6.05	25.38	50	6.98	32.41	25.40	259	0.16
74	6.21	32.53	6.08	25.60	75	6.18	32.53	25.60	240	0.22
99	5.64	32.71	5.80	25.81	100	5.62	32.72	25.82	220	0.28
124	5.39	33.09	4.78	26.14	150	5.36	33.34	26.34	171	0.38
148	5.36	33.32	4.13	26.33						
173	5.32	33.53	3.55	26.50						
198	5.01	33.66	3.11	26.64						

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HMCS OSHAWA; August 10, 1958; 0338 GCT; 55°42.5'N, 154°33'W; sounding, 510 fm; wind, 300°, 30 kt; weather, partly cloudy; sea, very rough.

0	10.70	32.25	-	24.71	0	10.70	32.25	24.71	324	0.00
10	10.52	32.23	6.62	24.73	10	10.52	32.23	24.73	323	0.03
20	10.56	32.23	6.68	24.72	20	10.56	32.23	24.72	324	0.06
30	(9.90)a)	32.24	6.63	(24.83)	30	9.90	32.24	24.83	313	0.10
50	6.51	32.44	6.08	25.49	50	6.51	32.44	25.49	250	0.15
75	6.17	32.52	6.07	25.60	75	6.17	32.52	25.60	241	0.22
100	5.89	32.61	5.99	25.70	100	5.89	32.61	25.70	231	0.28
125	5.71	32.69	5.76	25.79	150	5.47	32.84	25.93	210	0.39
149	5.48	32.83	5.68	25.92	200	5.12	33.49	26.48	158	0.48
174	5.26	33.20	4.48	26.25	250	5.12	33.74	26.68	139	0.55
199	5.12	(33.48)a)	3.42	(26.48)	300	4.88	33.90	26.84	125	0.62
237	5.14	33.68	2.98	26.64	400	4.26	33.99	26.98	113	0.74
284	4.99	33.86	2.13	26.80	500	3.94	34.09	27.09	102	0.85
331	4.60	33.93	1.62	26.89						
379	4.35	33.97	1.18	26.95						
474	4.00	34.07	0.66	27.07						
568	3.86	34.14	0.54	27.14						

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HMCS OSHAWA; August 10, 1958; 0653 GCT; 55°30'N, 154°16'W; sounding, 900 fm; wind, 310°, 18 kt; weather, cloudy; sea, slight.

0	10.80	32.25	-	24.69	0	10.80	32.25	24.69	326	0.00
10	10.82	32.23	6.64	24.67	10	10.82	32.23	24.67	328	0.03
20	10.87	32.23	6.69	24.67	20	10.87	32.23	24.67	329	0.07
30	10.78	32.24	6.64	24.69	30	10.78	32.24	24.69	327	0.10
50	6.38	32.45	6.15	25.52	50	6.38	32.45	25.52	248	0.16
75	5.98	32.56	6.00	25.65	75	5.98	32.56	25.65	235	0.22
100	5.71	32.67	5.94	25.77	100	5.71	32.67	25.77	224	0.28
125	5.60	32.77	5.69	25.86	150	5.49	32.93	26.00	203	0.38
150	5.49	32.93	5.38	26.00	200	5.40	33.50	26.47	159	0.47
175	5.52	33.22	4.36	26.22	250	5.19	33.77	26.70	138	0.55
200	5.40	33.50	3.52	26.47	300	4.38	33.81	26.83	126	0.62
250	5.19	33.77	2.61	26.70	400	4.26	33.97	26.97	114	0.74
300	4.38	33.81	2.27	26.83	500	3.99	34.08	27.08	104	0.85
350	4.43	33.91	1.50	26.90	600	3.81	34.17	27.16	96	0.95
400	4.26	33.97	0.91	26.97	700	3.62	34.23	27.24	90	1.04
500	3.99	34.08	0.47	27.08	800	3.42	34.28	27.29	85	1.13
600	3.81	34.17	0.48	27.16	1000	3.09	34.35	27.38	77	1.29
800	3.42	34.28	0.44	27.29						
1050	3.01	34.37	-	27.40						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
91	HMCS OSHAWA; August 10, 1958; 0945 GCT; 55°20'N, 153°54.5'W; sounding, missing; wind, 290°, 20 kt; weather, partly cloudy; sea, high.									
0	10.40	32.29	-	24.79	0	10.40	32.29	24.79	317	0.00
10	10.36	32.28	6.70	24.79	10	10.36	32.28	24.79	317	0.03
19	(9.86)a)	32.26	6.64	(24.86)	20	9.79	32.27	24.88	309	0.06
29	8.97	32.31	6.47	25.04	30	8.86	32.32	25.06	291	0.09
49	6.14	32.43	5.91	25.53	50	6.06	32.44	25.55	245	0.15
73	6.01	32.55	6.14	25.64	75	5.99	32.56	25.65	236	0.21
97	5.63	32.69	5.88	25.80	100	5.60	32.71	25.81	220	0.26
122	5.52	32.82	5.62	25.91	150	5.54	32.98	26.04	200	0.37
146	5.51	32.96	5.24	26.02	200	5.71	33.39	26.34	172	0.46
170	5.87	33.15	4.46	26.13	250	5.11	33.66	26.62	145	0.54
200	5.71	33.39	3.80	26.34	300	5.05	33.87	26.80	129	0.61
250	5.11	33.66	3.05	26.62	400	4.38	33.97	26.95	115	0.74
300	5.05	33.87	2.23	26.80	500	4.10	34.05	27.04	107	0.85
350	4.66	33.89	1.75	26.86	600	3.88	34.12	27.12	100	0.95
400	4.38	33.97	1.16	26.95	700	3.69	34.19	27.20	94	1.05
500	4.10	34.05	0.74	27.04	800	3.52	34.26	27.26	88	1.14
600	3.88	34.12	0.64	27.12						
800	3.52	34.26	0.53	27.26						
950	3.28	34.32	0.50	27.34						
92	HMCS OSHAWA; August 10, 1958; 1403 GCT; 54°58.5'N, 153°30'W; sounding, missing; wind, 020°, 20 kt; weather, partly cloudy; sea, rough.									
0	10.50	32.27	-	24.76	0	10.50	32.27	24.76	320	0.00
10	10.52	32.28	6.74	24.77	10	10.52	32.28	24.77	319	0.03
19	10.57	32.25	6.66	24.73	20	10.37	32.26	24.77	319	0.06
29	6.80	32.48	6.40	25.49	30	6.54	32.50	25.54	246	0.09
49	5.74	32.60	6.14	25.72	50	5.71	32.61	25.72	228	0.14
73	5.63	32.69	5.98	25.80	75	5.62	32.70	25.80	221	0.20
97	5.54	32.75	5.78	25.86	100	5.54	32.76	25.86	216	0.25
122	5.61	32.87	5.42	25.94	150	5.70	33.02	26.05	199	0.36
146	5.68	33.00	4.93	26.03	200	5.64	33.36	26.32	173	0.45
170	5.82	33.12	4.59	26.11	250	5.67	33.59	26.50	157	0.53
195	5.66	33.33	3.98	26.29	300	5.56	33.74	26.63	145	0.61
244	5.68	33.56	3.23	26.48	400	4.54	33.91	26.88	122	0.74
292	5.59	33.71	2.86	26.61	500	4.19	34.01	27.00	111	0.86
342	5.32	33.84	2.35	26.74	600	3.99	34.08	27.08	104	0.97
391	4.63	33.90	1.77	26.87	700	3.82	34.15	27.15	98	1.07
489	4.22	34.00	0.96	26.99	800	3.67	34.21	27.22	92	1.17
586	4.02	34.07	0.65	27.07	1000	3.28	34.32	27.34	82	1.34
781	3.70	34.20	0.46	27.20						
1028	3.22	34.33	0.43	27.35						
93	HMCS OSHAWA; August 10, 1958; 1822 GCT; 54°33.5'N, 153°06'W; sounding, missing; wind, 330°, 15 kt; weather, fog; sea, slight.									
0	10.50	32.23	-	24.73	0	10.50	32.23	24.73	322	0.00
10	10.49	32.22	6.88	24.72	10	10.49	32.22	24.72	323	0.03
20	10.51	32.22	6.79	24.72	20	10.51	32.22	24.72	324	0.06
30	7.08	32.40	5.81	25.39	30	7.08	32.40	25.39	260	0.09
50	6.05	32.47	5.78	25.58	50	6.05	32.47	25.58	242	0.14
75	5.92	32.57	5.91	25.67	75	5.92	32.57	25.67	234	0.20
100	5.58	32.70	5.89	25.81	100	5.58	32.70	25.81	221	0.26
125	5.51	32.91	5.29	25.99	150	5.61	33.28	26.26	178	0.36
150	5.61	33.28	4.17	26.26	200	5.38	33.70	26.62	145	0.44
175	5.69	33.49	3.57	26.42	250	4.91	33.84	26.79	129	0.51
200	5.38	33.70	2.91	26.62	300	4.52	33.92	26.90	119	0.58
250	4.91	33.84	2.35	26.79	400	4.20	34.02	27.01	109	0.69
300	4.52	33.92	1.59	26.90	500	3.97	34.10	27.10	102	0.80
350	4.41	33.97	1.18	26.94	600	3.77	34.17	27.17	96	0.90
400	4.20	34.02	0.91	27.01	700	3.56	34.23	27.24	89	0.99
500	3.97	34.10	0.56	27.10	800	3.35	34.29	27.31	83	1.08
600	3.77	34.17	0.52	27.17						
800	3.35	34.29	0.43	27.31						

a) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

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HMCS OSHAWA; August 10, 1958; 2249 GCT; 54°14.5'N, 152°32.5'W; sounding, 2150 fm; wind, 340°, 10 kt; weather, cloudy; sea, slight.

0	11.50	32.28	-	24.59	0	11.50	32.28	24.59	336	0.00
10	11.50	32.27	6.59	24.58	10	11.50	32.27	24.58	337	0.03
19	11.43	32.27	6.63	24.60	20	11.33	32.28	24.62	333	0.07
29	9.58	32.43	6.55	25.04	30	9.40	32.44	25.08	290	0.10
50	5.75	32.68	6.96	25.78	50	5.75	32.68	25.78	223	0.15
74	4.95	32.81	-	25.97	75	4.93	32.83	25.98	204	0.20
99	4.53	33.23	5.00	26.35	100	4.53	33.25	26.36	168	0.25
124	4.82	33.62	3.33	26.63	150	4.54	33.79	26.79	128	0.33
149	4.54	33.78	2.43	26.78	200	4.32	33.88	26.89	119	0.39
174	4.59	33.84	2.02	26.82	250	4.21	33.98	26.97	111	0.45
197	4.34	33.88	1.70	26.88	300	4.12	34.03	27.02	107	0.50
246	4.22	33.97	1.00	26.97	400	4.03	34.11	27.09	101	0.61
296	4.13	34.02	0.75	27.02	500	3.70	34.19	27.20	92	0.70
345	4.05	34.06	0.55	27.05	600	3.46	34.26	27.27	86	0.79
394	4.04	34.10	0.56	27.09	700	3.28	34.31	27.33	81	0.88
494	3.72	34.19	0.44	27.19	800	3.13	34.35	27.37	77	0.96
593	3.48	34.25	0.49	27.27	1000	2.75	34.41	27.46	69	1.11
791	3.15	34.34	0.45	27.37						
990	2.76	34.41	0.77	27.45						
1188	2.56	34.46	0.63	27.52						

95

HMCS OSHAWA; August 11, 1958; 0239 GCT; 53°57'N, 152°06.5'W; sounding, 2450 fm; wind, 020°, 10 kt; weather, cloudy; sea, slight.

0	11.30	32.28	-	24.63	0	11.30	32.28	24.63	332	0.00
10	11.26	32.26	6.71	24.62	10	11.26	32.26	24.62	333	0.03
20	11.16	32.26	6.64	24.64	20	11.16	32.26	24.64	332	0.07
30	10.88	32.29	6.59	24.71	30	10.88	32.29	24.71	325	0.10
50	5.52	32.71	6.63	25.83	50	5.52	32.71	25.83	218	0.16
75	4.74	32.89	6.29	26.06	75	4.74	32.89	26.06	197	0.21
100	4.69	33.31	4.54	26.39	100	4.69	33.31	26.39	165	0.25
125	4.65	33.56	3.49	26.60	150	4.60	33.79	26.78	129	0.33
150	4.60	33.79	2.35	26.78	200	4.21	33.95	26.95	113	0.39
175	4.51	33.88	1.71	26.86	250	4.11	34.02	27.02	107	0.44
200	4.21	33.95	1.21	26.95	300	4.02	34.06	27.06	103	0.50
248	4.11	34.02	0.80	27.02	400	3.83	34.15	27.15	96	0.60
297	4.02	34.06	0.65	27.06	500	3.64	34.21	27.22	90	0.69
347	4.00	34.11	0.54	27.10	600	3.43	34.26	27.28	85	0.78
396	3.84	34.14	0.48	27.14	700	3.24	34.30	27.33	80	0.86
495	3.65	34.21	0.41	27.22	800	3.06	34.34	27.38	76	0.94
595	3.44	34.26	0.40	27.27	1000	2.73	34.42	27.47	69	1.09
794	3.07	34.34	0.43	27.37						
992	2.74	34.41	0.52	27.46						
1189	2.48	34.46	0.66	27.53						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
96	HMCS OSHAWA; August 11, 1958; 1154 GCT; 52°48'N, 150°26.5'W; sounding, 2400 fm; wind, 010°, 15 kt; weather, drizzle; sea, slight.[a]									
0	10.70	32.66	-	25.03	0	10.70	32.66	25.03	294	0.00
10	10.44	32.65	6.62	25.07	10	10.44	32.65	25.07	290	0.03
20	10.48	32.65	6.57	25.06	20	10.48	32.65	25.06	291	0.06
30	10.30	32.66	6.69	25.09	30	10.30	32.66	25.09	288	0.09
50	6.52	32.75	7.13	25.74	50	6.52	32.75	25.74	227	0.14
75	5.36	32.79	7.19	25.91	75	5.36	32.79	25.91	211	0.20
100	4.38	33.10	5.69	26.26	100	4.38	33.10	26.26	178	0.24
125	3.94	33.69	2.52	26.78	150	3.94	33.85	26.90	117	0.32
149	3.94	33.85	1.58	26.90	200	3.85	33.96	27.00	108	0.38
174	4.06	33.90	1.11	26.93	250	3.84	34.00	27.03	106	0.43
195	3.88	33.95	0.87	26.99	300	3.80	34.06	27.08	102	0.48
244	3.85	34.00	0.65	27.03	400	3.65	34.14	27.16	95	0.58
293	3.80	34.05	0.54	27.07	500	3.52	34.20	27.22	90	0.67
342	3.80	34.10	0.48	27.11						
391	3.67	34.14	0.50	27.15						
489	3.54	34.19	0.50	27.21						
586	3.35	34.25	0.47	27.28						
97	HMCS OSHAWA; August 11, 1958; 2021 GCT; 51°38'N, 148°59.5'W; sounding, missing; wind, 050°, 8 kt; weather, drizzle; sea, smooth.[b]									
0	11.30	32.60	-	24.88	0	11.30	32.60	24.88	308	0.00
10	11.32	32.59	6.51	24.87	10	11.32	32.59	24.87	309	0.03
20	11.35	32.59	6.52	24.86	20	11.35	32.59	24.86	310	0.06
30	(10.72)c)	32.59	6.46	(24.97)	30	10.72	32.59	24.97	300	0.09
50	7.48	32.66	7.24	25.54	50	7.48	32.66	25.54	246	0.15
75	6.04	32.71	7.02	25.76	75	6.04	32.71	25.76	225	0.21
100	5.18	32.98	6.01	26.08	100	5.18	32.98	26.08	195	0.26
125	5.33	33.61	3.14	26.56	150	5.60	33.81	26.68	139	0.34
149	5.59	33.80	2.11	26.68	200	5.18	33.89	26.80	128	0.41
174	5.62	33.87	1.80	26.73	250	4.71	33.91	26.87	122	0.47
195	5.25	33.89	1.72	26.79	300	4.35	33.94	26.93	116	0.53
244	4.76	33.91	1.67	26.86	400	4.03	34.03	27.04	107	0.65
292	4.39	33.94	1.57	26.92	500	3.82	34.12	27.12	99	0.75
341	4.23	33.98	1.22	26.97	600	3.60	34.19	27.20	92	0.85
390	4.06	34.02	0.95	27.03	700	3.40	34.25	27.27	86	0.94
487	3.85	34.11	0.75	27.11						
585	3.63	34.17	0.58	27.19						
780	3.26	34.30	0.48	27.32						

a) The following silicate values were obtained for this station: 0 m, 22.1; 10, 22.6; 20, 23.2; 30, 22.8; 50, 33.4; 75, 36.8; 100, 47.7; 149, 80.2; 195, 90.8; 293, 101.0; 391, 115.0; 586, 125.0 μg at/L.

b) The following silicate values were obtained for this station: 10 m, 21.6; 30, 20.7; 50, 24.0; 75, 26.0; 100, 36.8; 149, 60.9; 195, 67.2 μg at/L.

c) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

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HMCS OSHAWA; August 12, 1958; 0637 GCT; 50°15'N, 147°20'W; sounding, 2320 fm; wind, 340°, 8 kt; weather, cloudy; sea, smooth.[a]

0	12.40	32.58	-	24.66	0	12.40	32.58	24.66	329	0.00
10	12.01	32.55	6.44	24.71	10	12.01	32.55	24.71	324	0.03
20	11.98	32.55	6.50	24.72	20	11.98	32.55	24.72	324	0.06
30	11.86	32.56	6.50	24.74	30	11.86	32.56	24.74	322	0.10
50	6.80	32.85	7.17	25.78	50	6.80	32.85	25.78	224	0.15
75	6.22	32.93	7.08	25.92	75	6.22	32.93	25.92	210	0.21
100	5.35	32.95	6.99	26.03	100	5.35	32.95	26.03	200	0.26
125	4.58	33.40	5.35	26.48	150	3.95	33.60	26.70	136	0.34
149	3.96	33.60	4.38	26.70	200	3.62	33.78	26.88	120	0.41
174	3.85	33.70	3.58	26.79	250	3.63	33.86	26.94	114	0.47
200	3.62	33.78	2.89	26.88	300	3.64	33.93	27.00	109	0.52
250	3.63	33.86	2.23	26.94	400	3.68	34.06	27.09	101	0.63
300	3.64	33.93	1.64	27.00	500	3.59	34.16	27.19	93	0.73
349	3.72	34.00	1.23	27.04	600	3.40	34.24	27.26	86	0.82
399	3.68	34.06	0.88	27.09	700	3.23	34.29	27.32	81	0.90
499	3.59	34.16	0.66	27.18	800	3.08	34.33	27.37	78	0.98
595	3.41	34.24	0.65	27.26	1000	2.81	34.40	27.45	70	1.13
793	3.09	34.33	0.58	27.36						
991	2.82	34.40	0.54	27.45						
1190	2.52	34.46	0.64	27.52						

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HMCS OSHAWA; August 12, 1958; 1636 GCT; 49°00'N, 145°40'W; sounding, missing; wind, 270°, 10 kt; weather, partly cloudy; sea, smooth.[b]

0	12.80	32.80	-	24.75	0	12.80	32.80	24.75	321	0.00
10	13.05	32.78	6.34	24.69	10	13.05	32.78	24.69	327	0.03
20	12.91	32.78	6.34	24.72	20	12.91	32.78	24.72	324	0.06
30	12.86	32.78	6.26	24.73	30	12.86	32.78	24.73	323	0.10
50	10.79	32.82	6.81	25.14	50	10.79	32.82	25.14	284	0.16
75	6.88	32.92	7.15	25.82	75	6.88	32.92	25.82	220	0.22
100	6.18	32.96	6.90	25.94	100	6.18	32.96	25.94	208	0.28
124	5.99	33.14	6.51	26.11	150	5.78	33.60	26.49	156	0.37
149	5.79	33.59	5.62	26.48	200	4.95	33.75	26.71	136	0.44
174	5.54	33.72	5.13	26.62	250	4.20	33.78	26.82	126	0.51
195	5.05	33.75	4.87	26.70	300	4.03	33.86	26.90	119	0.57
243	4.27	33.78	3.95	26.81	400	3.89	33.99	27.02	108	0.68
292	4.05	33.85	2.99	26.89	500	3.78	34.10	27.11	100	0.79
341	3.99	33.91	2.28	26.94	600	3.65	34.17	27.19	94	0.89
389	3.91	33.98	1.77	27.01	700	3.49	34.24	27.25	88	0.98
486	3.80	34.09	1.19	27.10	800	3.31	34.29	27.31	83	1.06
584	3.67	34.16	0.90	27.18	1000	2.96	34.37	27.41	74	1.22
780	3.34	34.28	0.64	27.30						
1031	2.91	34.38	0.56	27.42						

a) The following silicate values were obtained for this station: 0 m, 16.6; 10, 17.0; 20, 17.2; 30, 15.7; 50, 30.9; 75, 29.7; 100, 31.3; 149, 60.0; 200, 76.2; 300, 94.3; 399, 109.0; 595, 128.0; 793, 141.0; 991, 146.0; 1190, 153.0 µg at/L.

b) The following silicate values were obtained for this station: 0 m, 18.8; 10, 18.7; 20, 19.0; 30, 19.0; 50, 21.9; 75, 25.5; 100, 26.8; 149, 39.3; 195, 49.9; 292, 75.3; 389, 92.3; 584, 116.0; 780, 131.0; 1031, 143.0 µg at/L and the following nitrate values: 0 m, 8.3; 10, 8.8; 30, 8.0; 75, 12.8; 100, 14.8; 195, 31.0; 292, 37.4; 584, 40.2; 780, 44.2; 1031, 42.7 µg at/L.

POG

NP-58-3

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

100 HMCS OSHAWA; August 13, 1958; 0155 GCT; 48°58'N, 143°20'W; sounding, 2300 fm; wind, 250°, 10 kt; weather, cloudy; sea, slight.[a]

0	13.20	32.76	-	24.64	0	13.20	32.76	24.64	331	0.00
8	13.39	32.77	6.24	24.61	10	13.37	32.77	24.61	334	0.03
18	13.04	32.75	6.34	24.66	20	13.00	32.75	24.67	328	0.07
28	12.92	32.75	6.35	24.69	30	12.72	32.76	24.74	322	0.10
48	8.18	32.96	7.21	25.67	50	7.90	32.97	25.72	229	0.16
73	7.22	32.97	6.80	25.81	75	7.16	32.97	25.82	219	0.21
98	6.55	32.98	6.82	25.91	100	6.51	33.00	25.93	209	0.26
123	6.13	33.40	5.90	26.30	150	5.52	33.68	26.59	148	0.36
148	5.56	33.66	5.28	26.57	200	4.64	33.76	26.76	132	0.43
173	5.17	33.72	4.97	26.67	250	4.24	33.81	26.84	124	0.49
198	4.67	33.76	4.49	26.75	300	4.00	33.86	26.90	118	0.55
250	4.24	33.81	3.57	26.84	400	3.86	33.99	27.02	108	0.66
300	4.00	33.86	2.72	26.90	500	3.80	34.10	27.11	100	0.77
350	3.87	33.92	2.02	26.96	600	3.64	34.18	27.19	93	0.87
400	3.86	33.99	1.59	27.02	700	3.47	34.24	27.26	88	0.96
500	3.80	34.10	1.10	27.11	800	3.28	34.29	27.31	83	1.04
600	3.64	34.18	0.84	27.19	1000	2.97	34.37	27.41	74	1.20
799	3.28	34.29	0.62	27.31						
998	2.97	34.37	0.56	27.41						
1198	2.67	34.43	0.60	27.48						

101 HMCS OSHAWA; August 13, 1958; 1106 GCT; 48°31'N, 141°23'W; sounding, missing; wind, 200°, 15 kt; weather, overcast; sea, smooth.[b]

0	14.30	32.82	-	24.46	0	14.30	32.82	24.46	348	0.00
10	14.44	32.81	6.26	24.43	10	14.44	32.81	24.43	352	0.04
19	14.36	32.81	6.24	24.44	20	14.20	32.81	24.47	347	0.07
29	11.47	32.82	6.91	25.02	30	11.23	32.82	25.06	292	0.10
48	8.32	(32.86)c)	7.27	(25.57)	50	8.12	32.87	25.61	240	0.16
72	7.56	32.96	6.90	25.76	75	7.50	32.96	25.77	225	0.21
97	7.34	32.95	6.76	25.79	100	7.30	32.96	25.79	223	0.27
121	6.88	32.99	6.72	25.88	150	6.20	33.59	26.44	162	0.37
145	6.27	33.53	5.68	26.38	200	5.33	33.72	26.65	142	0.44
169	6.12	33.67	5.49	26.51	250	4.70	33.78	26.77	131	0.51
193	5.48	33.71	5.24	26.62	300	4.41	33.85	26.85	124	0.58
250	4.70	33.78	4.26	26.77	400	4.23	33.99	26.98	112	0.70
300	4.41	33.85	3.17	26.85	500	3.98	34.10	27.10	102	0.80
350	4.28	33.92	2.28	26.92	600	3.70	34.18	27.18	94	0.90
400	4.23	33.99	1.85	26.98	700	3.49	34.24	27.26	88	1.00
500	3.98	34.10	1.15	27.10	800	3.35	34.30	27.32	82	1.08
599	3.70	34.18	0.77	27.18	1000	2.98	34.37	27.41	74	1.24
799	3.35	34.30	0.50	27.32						
998	2.98	34.37	0.46	27.41						
1196	2.68	34.44	0.47	27.49						

a) The following silicate values were obtained for this station: 0 m, 20.6; 8, 21.2; 18, 21.4; 28, 21.3; 48, 16.5; 73, 18.1; 98, 24.0; 148, 42.2; 198, 56.8; 300, 78.7; 400, 97.3; 600, 115.0; 799, 130.0; 998, 141.0; 1198, 149.0 µg at/L.

b) The following silicate values were obtained for this station: 10 m, 5.1; 19, 5.5; 29, 10.2; 48, 14.9; 72, 17.1; 97, 17.0; 145, 35.3; 193, 44.1; 300, 71.1; 400, 90.8; 599, 116.0; 799, 128.0; 998, 141.0; 1196, 151.0 µg at/L.

c) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

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HMCS OSHAWA; August 13, 1958; 1928 GCT; 48°05'N, 139°25'W; sounding, missing; wind, 240°, 15 kt; weather, cloudy; sea, slight.[a)]

0	15.30	32.66	-	24.13	0	15.30	32.66	24.13	380	0.00
10	15.48	32.64	5.76	24.08	10	15.48	32.64	24.08	385	0.04
20	15.49	32.64	6.01	24.07	20	15.49	32.64	24.07	386	0.08
30	11.94	(32.63)b)	7.11	(24.78)	30	11.94	32.63	24.78	318	0.11
50	8.97	32.57	7.36	25.24	50	8.97	32.57	25.24	275	0.17
75	8.03	32.65	6.83	25.45	75	8.03	32.65	25.45	255	0.24
100	7.18	32.70	6.52	25.61	100	7.18	32.70	25.61	240	0.30
125	6.52	33.03	5.94	25.95	150	6.16	33.40	26.29	176	0.41
150	6.16	33.40	5.39	26.29	200	6.06	33.80	26.62	145	0.49
175	6.18	33.64	4.93	26.47	250	5.66	33.88	26.74	135	0.56
200	6.06	33.80	4.18	26.62	300	5.27	33.91	26.81	128	0.62
250	5.66	33.88	3.54	26.74	400	4.53	34.00	26.95	115	0.75
300	5.27	33.91	2.48	26.81	500	4.19	34.10	27.07	104	0.86
350	4.89	33.94	2.17	26.87	600	3.91	34.19	27.17	96	0.96
400	4.53	34.00	1.46	26.95	700	3.71	34.25	27.25	89	1.05
500	4.19	34.10	0.85	27.07	800	3.58	34.30	27.29	85	1.14
600	3.91	34.19	0.58	27.17	1000	3.04	34.37	27.40	76	1.30
800	3.58	34.30	0.50	27.29						
999	3.04	34.37	0.45	27.40						
1198	2.72	34.38	0.59	27.44						

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HMCS OSHAWA; August 14, 1958; 0416 GCT; 47°36'N, 137°30'W; sounding, 2175 fm; wind, 250°, 12 kt; weather, cloudy; sea, smooth.[c)]

0	16.40	32.62	-	23.85	0	16.40	32.62	23.85	406	0.00
10	16.46	32.58	5.79	23.80	10	16.46	32.58	23.80	411	0.04
20	16.44	32.58	5.68	23.81	20	16.44	32.58	23.81	411	0.08
30	16.35	32.59	5.80	23.84	30	16.35	32.59	23.84	408	0.12
50	10.20	32.54	7.45	25.02	50	10.20	32.54	25.02	296	0.19
75	8.37	32.60	6.98	25.36	75	8.37	32.60	25.36	264	0.26
100	7.34	32.77	6.42	25.64	100	7.34	32.77	25.64	237	0.33
125	6.34	33.20	5.71	26.11	150	6.23	33.52	26.38	168	0.43
150	6.23	33.52	5.75	26.38	200	5.90	33.82	26.65	142	0.51
175	6.16	33.71	4.75	26.53	250	5.49	33.88	26.75	133	0.58
200	5.90	33.82	4.49	26.65	300	5.04	33.92	26.83	126	0.64
248	5.51	33.88	3.55	26.75	400	4.41	34.00	26.97	113	0.76
297	5.06	33.91	2.62	26.83	500	4.09	34.09	27.08	104	0.87
347	4.79	33.95	1.83	26.89	600	3.91	34.17	27.16	97	0.97
396	4.43	34.00	1.48	26.97	700	3.72	34.24	27.23	90	1.07
495	4.10	34.09	0.94	27.07	800	3.53	34.30	27.30	84	1.16
601	3.91	34.17	0.65	27.16						
793	3.54	34.30	0.53	27.30						
992	3.18	34.39	0.44	27.40						

a) The following silicate values were obtained for this station: 0 m, 0.9; 10, 0.4; 20, 0.4; 30, 0.5; 50, 4.6; 75, 10.6; 100, 16.1; 150, 35.2; 200, 47.1; 300, 66.1; 400, 85.2; 600, 109.0; 800, 130.0; 999, 137.0; 1198, 141.0 μg at/L.

b) Value interpolated by three-point parabolic method.

c) The following silicate values were obtained for this station: 0 m, 0.2; 10, <0.1; 20, <0.1; 30, <0.1; 50, 0.7; 75, 17.4; 100, 17.9; 150, 34.0; 200, 45.7; 297, 67.9; 396, 85.0; 601, 107.0; 793, 124.0; 992, 136.0 μg at/L.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

104 HMCS OSHAWA; August 14, 1958; 1300 GCT; 47°10'N, 135°30'W; sounding, missing; wind, 190°, 10 kt; weather, overcast; sea, smooth.[a]

0	17.00	32.59	-	23.69	0	17.00	32.59	23.69	422	0.00
10	17.21	32.58	5.82	23.63	10	17.21	32.58	23.63	428	0.04
20	17.19	32.58	5.82	23.63	20	17.19	32.58	23.63	427	0.09
30	(15.95)b)	32.58	6.08	(23.92)	30	15.95	32.58	23.92	400	0.13
50	9.83	32.58	7.49	25.11	50	9.83	32.58	25.11	287	0.20
75	8.57	32.63	6.97	25.35	75	8.57	32.63	25.35	264	0.27
100	7.96	32.72	6.68	25.51	100	7.96	32.72	25.51	249	0.33
125	6.73	(32.93)b)	5.70	(25.85)	150	6.18	33.25	26.17	187	0.44
149	6.19	(33.23)b)	5.38	(26.16)	200	6.07	33.80	26.62	146	0.52
174	6.29	33.67	4.88	26.49	250	5.82	33.87	26.71	137	0.60
199	6.08	33.80	4.37	26.61	300	5.26	33.92	26.81	128	0.66
246	5.85	33.87	3.49	26.70	400	4.54	33.96	26.93	117	0.79
295	5.31	33.92	2.77	26.80	500	4.12	34.06	27.05	106	0.90
345	4.88	33.92	2.42	26.86	600	3.84	34.15	27.15	98	1.00
394	4.57	33.96	1.84	26.92	700	3.61	34.22	27.23	91	1.10
492	4.15	34.06	1.21	27.04	800	3.45	34.28	27.29	85	1.19
591	3.86	34.14	0.80	27.14	1000	3.14	34.38	27.40	76	1.35
788	3.47	34.27	0.53	27.28						
983	3.17	34.37	0.38	27.39						
1182	2.78	34.44	0.43	27.48						

105 HMCS OSHAWA; August 14, 1958; 2125 GCT; 46°42.5'N, 133°32.5'W; sounding, 2100 fm; wind, 200°, 18 kt; weather, intermittent slight rain; sea, slight.[c]

0	18.20	32.59	-	23.40	0	18.20	32.59	23.40	449	0.00
10	18.18	32.58	5.61	23.40	10	18.18	32.58	23.40	450	0.04
20	18.20	32.58	5.63	23.40	20	18.20	32.58	23.40	450	0.09
30	16.62	32.57	5.94	23.76	30	16.62	32.57	23.76	416	0.13
50	10.90	32.55	7.16	24.91	30	16.62	32.57	23.76	416	0.13
75	9.00	32.58	6.47	25.24	50	10.90	32.55	24.91	306	0.21
100	8.20	32.69	6.19	25.45	75	9.00	32.58	25.24	275	0.28
125	7.20	(32.90)b)	5.75	(25.76)	100	8.20	32.69	25.45	255	0.35
150	7.00	(33.21)b)	5.15	(26.03)	150	7.00	33.21	26.03	201	0.46
175	7.22	33.62	5.36	26.32	200	6.58	33.77	26.53	154	0.55
198	6.62	33.76	5.17	26.52	250	6.15	33.87	26.66	142	0.62
248	6.17	33.87	4.44	26.66	300	5.49	33.88	26.75	134	0.69
297	5.52	33.88	3.72	26.75	400	4.67	33.95	26.90	120	0.82
346	5.14	33.91	2.84	26.82	500	4.22	34.03	27.01	110	0.94
396	4.70	33.95	2.11	26.90	600	3.94	34.12	27.11	101	1.04
495	4.24	34.03	1.30	27.01	700	3.72	34.20	27.20	94	1.14
594	3.96	34.11	0.82	27.11	800	3.56	34.27	27.27	87	1.24
792	3.57	34.27	0.43	27.27	1000	3.20	34.38	27.39	77	1.40
991	3.22	(34.37)b)	0.39	(27.39)						
1189	2.86	34.43	0.37	27.47						

a) The following silicate values were obtained for this station: 0 m, 0.5; 10, <0.1; 20, <0.1; 30, <0.1; 50, 0.2; 75, 4.5; 100, 11.1; 149, 34.7; 199, 44.9; 295, 63.3; 394; 79.3; 591, 105.0; 788, 120.0; 983, 131.0; 1182, 138.0 µg at/L and the following nitrate values: 0 m, 1.8; 10, 1.6; 20, 1.9; 30, 2.0; 50, 7.2; 75, 5.7; 100, 11.2; 199, 27.9; 295, 34.6; 591, 39.7; 788, 39.1; 983, 41.8 µg at/L.

b) Value interpolated by three-point parabolic method.

c) The following silicate values were obtained for this station: 0 m, <0.1; 10, <0.1; 20, <0.1; 30, <0.1; 50, <0.1; 75, 5.2; 100, 12.0; 150, 29.3; 198, 36.2; 297, 55.0; 396, 75.0; 594, 100.0; 792, 117.0; 991, 129.0; 1189, 137.0 µg at/L.

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HMCS OSHAWA; August 15, 1958; 0545 GCT; 46°42.5'N, 131°37.5'W; sounding, 1750 fm; wind, 200°, 12 kt; weather, drizzle; sea, slight.[a]

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
0	18.40	32.57	-	23.34	0	18.40	32.57	23.34	455	0.00
10	18.44	(32.58)b)	5.66	(23.33)	10	18.44	32.58	23.33	456	0.05
20	18.34	32.57	5.69	23.35	20	18.34	32.57	23.35	455	0.09
30	16.88	32.54	6.08	23.68	30	16.88	32.54	23.68	424	0.14
50	10.63	32.50	7.38	24.92	50	10.63	32.50	24.92	306	0.21
74	8.75	32.51	6.81	25.23	75	8.69	32.51	25.24	275	0.28
99	7.76	32.65	6.31	25.48	100	7.72	32.66	25.50	251	0.35
124	6.81	33.16	5.70	26.02	150	6.79	33.51	26.30	176	0.46
149	6.80	33.50	5.58	26.29	200	6.50	33.75	26.53	154	0.54
174	6.54	33.69	5.43	26.47	250	6.10	33.87	26.67	141	0.61
197	6.51	33.75	5.26	26.52	300	5.58	33.91	26.77	132	0.68
246	6.14	33.87	4.44	26.66	400	4.80	33.98	26.91	119	0.81
296	5.62	33.91	2.79	26.76	500	4.44	34.09	27.04	108	0.92
345	5.23	33.93	2.15	26.83	600	3.96	34.13	27.12	100	1.03
395	4.83	33.97	1.64	26.90	700	3.71	34.20	27.20	93	1.13
493	4.47	34.08	0.85	27.03	800	3.65	34.28	27.27	87	1.22
592	3.99	34.13	0.69	27.12	1000	3.25	34.41	27.41	75	1.38
790	3.67	34.28	0.37	27.27						
985	3.28	34.40	0.32	27.40						
1182	2.85	34.43	0.43	27.46						

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HMCS OSHAWA; August 15, 1958; 1409 GCT; 46°42'N, 129°39'W; sounding, 1425 fm; wind, 220°, 5 kt; weather, drizzle; sea, smooth.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
0	18.50	32.19	-	23.02	0	18.50	32.19	23.02	485	0.00
10	18.72	32.18	5.52	22.96	10	18.72	32.18	22.96	491	0.05
20	18.30	32.14	5.59	23.04	20	18.30	32.14	23.04	484	0.10
30	15.87	32.19	6.00	23.64	30	15.87	32.19	23.64	427	0.14
49	11.40	32.38	6.54	24.68	50	11.23	32.38	24.72	324	0.22
74	9.16	32.45	6.40	25.12	75	9.10	32.46	25.14	285	0.30
99	8.24	32.74	5.67	25.49	100	8.21	32.76	25.51	250	0.36
123	7.58	33.23	4.80	25.97	150	7.22	33.46	26.20	185	0.47
148	7.22	33.44	4.57	26.18	200	6.89	33.76	26.48	159	0.56
172	7.47	33.66	3.68	26.32	250	6.50	33.87	26.62	146	0.64
197	6.94	33.75	4.82	26.46	300	5.91	33.91	26.72	137	0.71
248	6.52	(33.87)b)	4.18	(26.61)	400	4.95	33.96	26.88	123	0.84
297	5.94	33.90	3.26	26.72	500	4.43	34.04	27.00	111	0.96
346	5.45	33.93	2.55	26.80	600	4.01	34.12	27.11	102	1.06
396	4.98	33.95	1.85	26.87	700	3.71	34.20	27.20	93	1.16
495	4.45	34.04	1.20	26.99	800	3.52	34.27	27.28	87	1.25
981	3.46	34.39	0.36	27.38						
986	3.48	34.40	0.36	27.38						
991	3.50	34.40	0.36	27.38						
996	3.48	34.40	0.36	27.38						

a) The following silicate values were obtained for this station: 0 m, <0.1; 10, <0.1; 20, <0.1; 30, <0.1; 50, <0.1; 74, 6.4; 99, 13.2; 149, 28.3; 197, 34.8; 296, 59.1; 395, 78.8; 592, 106.0; 790, 123.0; 985, 141.0; 1182, 154.0 µg at/L.

b) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
108	HMCS OSHAWA; August 15, 1958; 2129 GCT; 46°40'N, 127°42'W; sounding, missing; wind, 340°, 10 kt; weather, partly cloudy; sea, smooth.									
0	19.40	32.27	-	22.86	0	19.40	32.27	22.86	500	0.00
10	19.18	32.26	5.54	22.91	10	19.18	32.26	22.91	497	0.05
20	17.62	32.41	5.66	23.40	20	17.62	32.41	23.40	450	0.10
30	16.91	32.43	5.91	23.59	30	16.91	32.43	23.59	432	0.14
50	11.04	32.56	6.94	24.90	50	11.04	32.56	24.90	308	0.22
75	10.50	32.80	5.49	25.17	75	10.50	32.80	25.17	282	0.29
100	9.74	33.13	4.66	25.56	100	9.74	33.13	25.56	246	0.36
124	8.68	33.52	3.76	26.03	150	7.77	33.63	26.25	180	0.46
149	7.79	33.62	3.74	26.24	200	7.32	33.89	26.52	155	0.55
174	7.88	33.83	2.89	26.40	250	6.91	33.97	26.64	145	0.62
199	7.34	33.89	2.69	26.52						
249	6.92	33.97	2.26	26.64						
298	6.19	33.97	2.06	26.74						
109	HMCS OSHAWA; August 16, 1958; 0308 GCT; 46°42'N, 126°24'W; sounding, 1400 fm; wind, 340°, 12 kt; weather, cloudy; sea, slight.									
0	19.10	32.24	-	22.92	0	19.10	32.24	22.92	496	0.00
10	19.33	32.23	5.51	22.85	10	19.33	32.23	22.85	502	0.05
20	17.27	32.22	5.78	23.34	20	17.27	32.22	23.34	455	0.10
30	16.47	32.24	5.92	23.54	30	16.47	32.24	23.54	436	0.14
50	11.30	32.36	6.91	24.69	50	11.30	32.36	24.69	327	0.22
74	8.95	32.45	6.44	25.16	75	8.88	32.46	25.17	282	0.30
99	7.85	32.75	5.80	25.55	100	7.81	32.77	25.57	244	0.36
124	7.09	33.25	5.03	26.05	150	7.19	33.59	26.30	175	0.47
149	7.18	33.58	4.05	26.30	200	7.02	33.87	26.55	152	0.55
174	7.44	33.76	3.36	26.40	250	6.49	33.95	26.68	140	0.62
199	7.03	33.87	3.01	26.54	300	5.92	33.94	26.75	134	0.69
248	6.51	33.95	2.46	26.68	400	5.31	34.04	26.90	121	0.82
298	5.94	33.94	2.26	26.75	500	4.85	34.09	26.99	113	0.94
348	5.55	33.97	1.90	26.81	600	4.40	34.17	27.10	103	1.05
397	5.32	34.03	1.33	26.89	700	4.11	34.23	27.19	95	1.15
497	4.86	34.09	0.90	26.99	800	3.97	34.29	27.25	90	1.24
596	4.41	34.16	0.52	27.10	1000	3.49	34.39	27.38	79	1.41
795	3.98	34.29	0.34	27.24						
994	3.50	34.39	0.32	27.37						
1191	3.07	34.45	0.48	27.46						
110	HMCS OSHAWA; August 16, 1958; 0905 GCT; 46°42'N, 125°05'W; sounding, 430 fm; wind, 340°, 18 kt; weather, partly cloudy; sea, slight.									
0	18.50	32.23	-	23.05	0	18.50	32.23	23.05	482	0.00
10	19.14	32.21	5.50	22.88	10	19.14	32.21	22.88	499	0.05
19	16.60	32.20	6.19	23.48	20	16.18	32.21	23.59	432	0.10
29	11.10	32.46	7.27	24.80	30	10.73	32.47	24.88	309	0.13
48	9.88	32.45	7.18	25.01	50	9.77	32.46	25.03	294	0.19
71	8.76	32.75	5.66	25.42	75	8.59	32.83	25.50	250	0.26
95	7.89	33.29	4.55	25.97	100	7.80	33.37	26.04	199	0.32
121	7.80	33.56	3.77	26.20	150	7.59	33.75	26.38	168	0.41
145	7.60	33.72	3.44	26.35	200	7.21	33.91	26.55	152	0.49
169	7.68	33.84	2.92	26.43	250	6.74	33.96	26.66	143	0.57
193	7.30	33.90	2.70	26.53	300	6.34	34.00	26.74	136	0.64
241	6.82	33.95	2.32	26.64	400	5.68	34.06	26.87	124	0.77
289	6.42	33.99	1.87	26.72	500	5.13	34.11	26.98	114	0.89
337	6.09	34.03	1.49	26.80						
386	5.77	34.05	1.31	26.86						
482	5.22	34.10	0.86	26.96						
578	4.80	34.16	0.60	27.06						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	σ_t g/L	δ cl/ton	ΔD dyn m

HMCS OSHAWA; August 16, 1958; 1858 GCT; 48°24'N, 124°52'W; sounding, 176 fm; wind, 340°, 10 kt; weather, overcast; sea, slight.

0	10.50	32.38	-	24.85	0	10.50	32.38	24.85	311	0.00
10	8.27	33.03	4.01	25.71	10	8.27	33.03	25.71	229	0.03
20	7.76	33.32	3.91	26.01	20	7.76	33.32	26.01	201	0.05
30	7.68	33.37	3.83	26.06	30	7.68	33.37	26.06	196	0.07
50	7.49	33.53	3.39	26.22	50	7.49	33.53	26.22	182	0.11
74	7.41	33.59	3.27	26.28	75	7.40	33.60	26.28	176	0.15
99	7.01	33.70	2.52	26.42	100	7.00	33.71	26.42	163	0.20
124	6.91	33.76	2.41	26.47	150	6.84	33.83	26.54	153	0.27
149	6.84	33.83	2.33	26.54	200	6.75	33.86	26.57	150	0.35
174	6.96	33.84	2.30	26.53	250	6.76	33.89	26.60	148	0.43
198	6.76	33.86	2.18	26.57						
248	6.76	33.89	2.16	26.60						
298	6.70	33.92	2.07	26.63						

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m

1

HMCS OSHAWA; September 2, 1958; 1730 GCT;[a] 48°40'N, 135°30'W; sounding, missing; wind, 220°, 5 kt; weather, overcast; sea, slight.

1202	2.71	-	
1505	2.35	34.511	27.56
2010	1.94	34.582	27.65
2512	1.73	34.638	27.71
3015	1.60	34.650	27.73

2

HMCS OSHAWA; September 3, 1958; 1540 GCT; 48°04'N, 135°37'W; sounding, missing; wind, 280°, 10 kt; weather, intermittent moderate rain; sea, slight.

0	15.20	32.578	24.08	0	15.20	32.58	24.08	384	0.00
10	15.65	32.617	24.02	10	15.65	32.62	24.02	391	0.04
20	15.66	32.570	23.98	20	15.66	32.57	23.98	395	0.08
30	14.46	32.593	24.25	30	14.46	32.59	24.25	368	0.12
50	(11.80)b)	32.609	(24.79)	50	11.80	32.61	24.79	318	0.19
75	7.98	32.713	25.50	75	7.98	32.71	25.50	250	0.26
100	7.20	32.753	25.65	100	7.20	32.75	25.65	237	0.32
150	6.10	33.462	26.35	125	6.57	33.00	25.93	210	0.37
200	5.64	33.778	26.65	150	6.10	33.46	26.35	170	0.42
251	5.19	33.850	26.76	175	5.79	33.67	26.55	152	0.46
301	4.76	33.896	26.85	200	5.64	33.78	26.65	142	0.50
351	4.56	33.941	26.91	250	5.20	33.85	26.76	132	0.57
402	4.23	33.985	26.98	300	4.77	33.90	26.85	124	0.63
503	4.12	34.087	27.07	400	4.25	33.98	26.97	113	0.75
606	3.92	34.166	27.15	500	4.11	34.08	27.07	105	0.86
808	3.40	34.279	27.29	600	3.93	34.16	27.15	98	0.96
1010	3.10	34.388	27.41	700	3.70	34.23	27.22	91	1.06
1212	2.83	34.465	27.50	800	3.42	34.28	27.29	85	1.15
				1000	3.11	34.38	27.40	75	1.31
				1200	2.85	34.46	27.49	68	1.46

2B

HMCS OSHAWA; September 4, 1958; 0328 GCT; 48°07'N, 135°45'W; sounding, missing; wind, 350°, 18 kt; weather, overcast; sea, moderate.

1012	3.11	34.391	27.40
1212	2.79	34.450	27.48
1515	2.39	34.513	27.56

a) Although not indicated in the tabulation, three casts were made at each station to a maximum depth of 3000 meters. (On Stas. 1 and 2B only the deep casts were successful.) The time reported is the time of the messenger release of the first cast.

b) Value interpolated by three-point parabolic method.

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m
3									
HMCS OSHAWA; September 5, 1958; 1657 GCT; 48°22'N, 132°00'W; sounding, 1560 fm; wind, 250°, 15 kt; weather, cloudy; sea, moderate.									
0	17.10	32.266	23.42	0	17.10	32.27	23.42	448	0.00
10	17.42	32.239	23.32	10	17.42	32.24	23.32	457	0.04
20	17.44	32.246	23.32	20	17.44	32.25	23.32	457	0.09
30	17.40	32.242	23.33	30	17.40	32.24	23.33	457	0.14
50	11.96	32.420	24.62	50	11.96	32.42	24.62	334	0.22
72	9.28	32.480	25.13	75	9.04	32.49	25.17	281	0.29
96	8.20	32.629	25.41	100	8.05	32.66	25.46	255	0.36
148	6.88	33.258	26.09	125	7.29	32.93	25.77	225	0.42
196	6.69	33.739	26.49	150	6.85	33.28	26.11	194	0.48
244	6.26	33.865	26.65	175	6.65	33.54	26.34	172	0.52
292	5.72	33.916	26.75	200	6.66	33.76	26.51	156	0.56
341	5.32	33.943	26.82	250	6.20	33.88	26.66	142	0.64
390	4.90	33.965	26.89	300	5.64	33.92	26.77	132	0.71
487	4.52	34.054	27.00	400	4.83	33.97	26.90	120	0.83
585	4.34	34.166	27.11	500	4.48	34.07	27.02	110	0.95
784	3.86	34.298	27.26	600	4.31	34.18	27.12	101	1.06
1000	3.46	34.393	27.38	700	4.08	34.26	27.21	93	1.15
1203	2.95	34.455	27.48	800	3.83	34.31	27.27	87	1.24
1505	2.44	34.529	27.58	1000	3.46	34.39	27.38	78	1.41
2010	1.92	34.599	27.68	1200	2.96	34.45	27.48	70	1.56
2515	1.72	34.642	27.73	1500	2.45	34.53	27.58	60	1.76
3025	1.68	34.660	27.75	2000	1.93	34.60	27.68	51	2.04
				2500	1.72	34.64	27.73	47	2.29
				3000	1.68	34.66	27.75	47	2.53
4									
HMCS OSHAWA; September 7, 1958; 2140 GCT; 48°14'N, 131°44'W; sounding, missing; wind, 020°, 15 kt; weather, partly cloudy; sea, slight.									
0	17.60	32.330	23.35	0	17.60	32.33	23.35	454	0.00
10	(17.74)a)	32.301	(23.29)	10	17.74	32.30	23.29	460	0.05
20	17.76	32.291	23.28	20	17.76	32.29	23.28	461	0.09
30	17.66	32.283	23.30	30	17.66	32.28	23.30	460	0.14
50	13.00	(32.325)a)	(24.34)	50	13.00	32.32	24.34	360	0.22
75	9.11	32.486	25.16	75	9.11	32.49	25.16	283	0.30
100	7.92	32.667	25.48	100	7.92	32.67	25.48	253	0.37
150	6.71	33.436	26.25	125	7.12	32.98	25.84	219	0.43
200	6.72	33.806	26.54	150	6.71	33.44	26.25	180	0.48
250	6.20	33.910	26.69	175	6.56	33.67	26.45	161	0.52
300	5.73	33.911	26.75	200	6.72	33.81	26.54	153	0.56
350	5.30	33.934	26.82	250	6.20	33.91	26.69	140	0.64
400	4.89	33.967	26.89	300	5.73	33.91	26.75	134	0.70
500	4.41	34.085	27.04	400	4.89	33.97	26.89	121	0.83
602	4.22	34.159	27.12	500	4.41	34.08	27.04	108	0.95
806	3.87	34.330	27.29	600	4.22	34.16	27.12	101	1.05
1010	3.31	34.400	27.40	700	4.05	34.24	27.20	94	1.15
1210	2.94	34.453	27.48	800	3.88	34.32	27.28	87	1.24
1515	2.45	34.521	27.57	1000	3.34	34.40	27.40	77	1.41
2020	1.94	34.597	27.68	1200	2.95	34.45	27.47	70	1.56
2525	1.73	34.640	27.73	1500	2.47	34.52	27.57	61	1.76
2930	1.66	34.642	27.73	2000	1.95	34.59	27.67	52	2.04
3000	(1.66)b)	(34.639)b)	(27.73)	2500	1.73	34.64	27.72	47	2.29
				3000	1.66	34.64	27.73	48	2.54

a) Value interpolated by three-point parabolic method.
b) Value extrapolated by three-point parabolic method.

OBSERVED	
Z m	T °C

HMCS OSHAWA; September 26, 1958; 0617 GCT;[a] 53°44'N, 133°52.5'W; sounding, missing; wind, 130°, 10 kt; weather, overcast; sea, moderate.

0	13.10
10	13.22
20	13.18
30	13.12
50	8.80
75	8.50
100	7.44
125	6.77
150	6.61
175	6.34
200	5.98
250	5.53
300	5.26
350	4.97
400	4.61
500	4.25
600	4.23
800	3.64
998	3.11
1196	2.73

HMCS OSHAWA; September 27, 1958; 1355 GCT; 53°35.5'N, 135°14.5'W; sounding, 1550 fm; wind, 350°, 10 kt; weather, overcast; sea, moderate.

0	13.00
10	13.24
20	13.23
30	13.05
50	7.92
75	7.00
100	6.68
125	6.50
150	6.33
175	5.98
200	5.74

OBSERVED	
Z m	T °C

HMCS OSHAWA; September 27, 1958; 1119 GCT; 53°29.5'N, 135°26'W; sounding, 700 fm; wind, 350°, 15 kt; weather, overcast; sea, moderate. 2

0	12.90
10	13.05
20	13.03
30	10.97
50	7.66
75	6.88
99	6.90
124	6.50
149	6.42
174	6.30
199	6.16
249	5.76
298	5.38
348	4.92
398	4.62
497	4.26
597	4.03
796	3.53
995	3.22

HMCS OSHAWA; September 27, 1958; 1725 GCT; 53°42'N, 135°02.5'W; sounding, 1400 fm; wind, 360°, 15 kt; weather, cloudy; sea, moderate. 4

0	13.10
10	13.32
20	13.34
29	13.35
49	8.36
74	7.44
98	6.80
123	6.42
147	6.14
172	5.90
196	5.76
245	5.38
295	5.04
350	4.59
400	4.37
501	4.18
603	3.96
807	3.51

a) Although not indicated in the tabulation, two casts were made at each station, the first from 500 to 2500 meters and the second from 0 to 400 meters. The time reported is the time of the messenger release of the first cast (deep).

5

HMCS OSHAWA; September 27, 1958; 2037 GCT; 53°50'N, 134°47.5'W; sounding, 1495 fm; wind,

6

350°, 15 kt; weather, partly cloudy; sea, moderate.

OBSERVED	
Z	T
m	°C
0	13.60
10	13.25
20	13.20
30	13.20
50	8.45
75	7.66
100	6.76
125	6.46
150	6.23
175	5.91
200	5.64
300	4.86
400	4.34
500	4.06
600	3.79
800	3.40
1003	3.04
1205	2.61
1510	2.27
2017	1.89

HMCS OSHAWA; September 29, 1958; 0412 GCT; 54°04'N, 134°22'W; sounding, 1507 fm; wind, 020°, 5 kt; weather, overcast; sea, slight.

OBSERVED	
Z	T
m	°C
0	13.00
10	13.32
20	13.24
30	13.24
50	9.20
75	7.16
100	6.70
125	6.44
150	6.24
175	5.98
200	5.83
300	5.12
400	4.50
500	4.18
600	3.96
802	3.54
1005	3.17
1204	2.87
1502	2.32
2498	1.71

7

HMCS OSHAWA; September 29, 1958; 0709 GCT; 53°57'N, 134°34'W; sounding, 1525 fm; wind,

8

missing; weather, cloudy; sea, calm.

Z	T
m	°C
0	13.10
10	13.32
20	13.26
30	13.26
50	9.82
75	7.86
100	7.16
125	6.76
150	6.51
175	6.27
200	5.98
300	4.88
400	4.34
502	4.04
603	3.88
805	3.42
1007	2.99
1209	2.70
1512	2.20
2017	1.92
2525	1.70

HMCS OSHAWA; September 29, 1958; 1201 GCT; 53°42'N, 135°00'W; sounding, 1465 fm; wind, 060°, 5 kt; weather, overcast; sea, calm.

Z	T
m	°C
0	12.90
10	13.14
20	13.04
30	11.70
50	8.14
75	7.15
100	6.64
125	6.40
150	6.10
175	5.82
200	5.69
300	4.91
400	4.58
500	4.19
600	3.93
802	3.48
1003	3.12
1204	2.82
1508	2.30
2014	1.93
2519	1.69

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

CNAV WHITETHROAT; November 12, 1958; 1936 GCT;[a] 48°17'N, 123°31'W; sounding, 100 fm; wind, 220°, 18 kt; weather, cloudy; sea, rough. 1

0	9.20	31.357	4.53	24.26	0	9.20	31.36	24.26	367	0.00
2	9.02	31.346	4.64	24.28	10	8.99	31.43	24.35	358	0.04
5	9.02	31.347	4.68	24.28	20	8.96	31.48	24.39	355	0.07
8	9.00	31.406	4.62	24.33	30	8.91	31.62	24.51	344	0.11
16	8.98	31.445	4.57	24.36	50	8.69	32.06	24.89	308	0.17
39	8.83	31.801	4.17	24.67	75	8.46	32.50	25.26	273	0.25
59	8.55	32.314	3.51	25.11	100	8.26	32.91	25.62	239	0.31
79	8.46	32.509	3.64	25.27	125	8.17	32.95	25.66	235	0.37
98	8.27	32.893	3.32	25.60	150	8.05	33.05	25.76	227	0.43
118	8.20	32.933	3.33	25.64						
138	8.11	32.999	3.27	25.71						
150	(8.05)b)	(33.051)b)	-	(25.76)						

CNAV WHITETHROAT; November 12, 1958; 2040 GCT; 48°14.5'N, 123°32.5'W; sounding, 95 fm; wind, 220°, 30 kt; weather, cloudy; sea, moderate. 2

0	9.10	31.665	4.70	24.52	0	9.10	31.67	24.52	343	0.00
2	8.95	31.647	4.50	24.53	10	8.94	31.65	24.53	341	0.03
6	8.94	31.653	4.65	24.53	20	8.95	31.65	24.53	342	0.07
10	8.94	31.652	4.58	24.53	30	8.95	31.67	24.54	341	0.10
19	8.95	31.650	4.42	24.53	50	8.92	31.76	24.52	334	0.17
48	8.92	31.752	4.18	24.61	75	8.81	31.93	24.77	320	0.25
72	8.84	31.870	3.65	24.72	100	8.41	32.73	25.45	255	0.32
97	8.45	32.664	3.32	25.40	125	8.21	33.01	25.70	232	0.39
121	8.24	32.978	3.29	25.67	150	8.08	33.08	25.78	225	0.44
145	8.10	33.087	3.28	25.78						
150	(8.08)b)	(33.084)b)	-	(25.78)						

CNAV WHITETHROAT; November 12, 1958; 2137 GCT; 48°10'N, 123°33'W; sounding, 17 fm; wind, 220°, 10 kt; weather, cloudy; sea, rough. 3

0	9.40	31.382	4.75	24.25	0	9.40	31.38	24.25	368	0.00
2	9.30	30.766	4.95	23.79	10	9.27	31.44	24.31	362	0.04
6	9.30	31.419	5.12	24.29	20	9.25	31.50	24.37	357	0.07
10	9.27	31.437	5.02	24.31						
15	9.27	31.479	4.43	24.35						
24	9.22	31.510	4.43	24.38						
25	(9.21)b)	(31.510)b)	-	(24.38)						

CNAV WHITETHROAT; November 12, 1958; 2311 GCT; 48°10'N, 123°33'W; sounding, 13 fm; wind, 240°, 12 kt; weather, cloudy; sea, moderate. 4

0	9.50	31.368	5.30	24.22	0	9.50	31.37	24.22	371	0.00
4	9.42	31.363	5.24	24.23	10	9.30	31.48	24.35	359	0.04
14	9.22	31.650	4.70	24.49	20	9.03	31.90	24.71	324	0.07
29	8.66	32.392	3.94	25.15						

CNAV WHITETHROAT; November 13, 1958; 0000 GCT; 48°14.5'N, 123°32.5'W; sounding, 90 fm; wind, 240°, 12 kt; weather, partly cloudy; sea, moderate. 5

0	9.10	31.675	4.75	24.53	0	9.10	31.67	24.53	342	0.00
2	8.90	31.615	4.53	24.51	10	8.90	31.80	24.65	330	0.03
6	8.90	31.713	4.50	24.59	20	8.81	31.82	24.68	327	0.07
10	8.90	31.796	4.39	24.65	30	8.76	31.87	24.73	323	0.10
20	8.81	31.822	4.39	24.68	50	8.76	32.02	24.85	312	0.16
49	8.77	31.995	4.14	24.83	75	8.28	32.92	25.63	238	0.23
74	8.30	32.900	3.34	25.60	100	7.99	33.25	25.92	210	0.29
98	8.00	33.231	3.01	25.91	125	7.93	33.33	25.99	204	0.34
123	7.94	33.320	2.94	25.99	150	7.83	33.42	26.08	196	0.39
148	7.84	33.412	2.86	26.07						
150	(7.83)b)	(33.419)b)	-	(26.08)						

a) At inshore stations observations were made to a maximum depth of 400 meters. At offshore stations data were collected to a depth of 1500 meters. Although not indicated in the tabulation, two casts were made, the first to 250 meters. The time reported is the time of the messenger release of the shallow cast. On the deep stations (over 400 meters) the messenger for the deep cast was usually released 30 to 40 minutes later.

b) Value extrapolated by three-point parabolic method.

POG

CS-58-I

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
6	CNAV WHITETHROAT; November 13, 1958; 0133 GCT; 48°16'N, 123°30.5'W; sounding, 88 fm; wind, 240°, 18 kt; weather, partly cloudy; sea, rough.									
0	8.90	31.469	5.31	24.40	0	8.90	31.47	24.40	354	0.00
2	8.92	31.421	4.72	24.35	10	8.92	31.51	24.43	351	0.04
6	8.95	31.426	4.70	24.35	20	8.88	31.73	24.60	335	0.07
10	8.92	31.513	4.66	24.43	30	8.84	31.86	24.71	325	0.10
19	8.88	31.712	4.40	24.59	50	8.78	31.88	24.73	323	0.17
49	8.78	31.870	4.22	24.73	75	8.69	32.03	24.87	310	0.25
73	8.70	32.016	4.12	24.85	100	8.52	32.31	25.11	288	0.32
97	8.55	32.257	3.85	25.06	125	8.13	33.00	25.71	231	0.39
121	8.21	32.865	3.38	25.59						
125	(8.13)a)	(33.002)a)	-	(25.71)						
7	CNAV WHITETHROAT; November 13, 1958; 0802 GCT; 48°46'N, 123°02'W; sounding, 123 fm; wind, 260°, 13 kt; weather, clear; sea, calm.									
0	10.00	29.991	4.70	23.07	0	10.00	29.99	23.07	480	0.00
2	9.42	30.139	4.62	23.28	10	9.42	30.14	23.28	461	0.05
6	9.42	30.141	4.46	23.28	20	9.42	30.15	23.29	460	0.09
10	9.42	30.135	4.64	23.28	30	9.42	30.17	23.31	459	0.14
19	9.42	30.145	4.59	23.28	50	9.40	30.26	23.37	453	0.23
48	9.40	30.253	4.40	23.37	75	9.41	30.24	23.36	454	0.34
72	9.41	30.235	4.45	23.36	100	9.41	30.25	23.37	454	0.46
97	9.41	30.257	4.20	23.37	125	9.42	30.21	23.33	458	0.57
121	9.42	30.210	4.46	23.33	150	9.41	30.19	23.32	459	0.69
145	9.41	30.199	4.48	23.33	175	9.40	30.09	23.25	466	0.80
169	9.40	30.123	4.44	23.27						
175	(9.40)a)	(30.094)a)	-	(23.25)						
8	CNAV WHITETHROAT; November 13, 1958; 0918 GCT; 48°43.5'N, 122°58.5'W; sounding, 88 fm; wind, 230°, 15 kt; weather, clear; sea, calm.									
0	9.40	28.810	5.39	22.25	0	9.40	28.81	22.25	559	0.00
2	9.34	29.414	5.10	22.73	10	9.38	29.95	23.14	474	0.05
6	9.34	29.897	5.00	23.10	20	9.39	30.05	23.21	467	0.10
10	9.38	29.950	4.90	23.14	30	9.39	30.12	23.27	462	0.15
20	9.39	30.048	4.79	23.21	50	9.38	30.19	23.33	457	0.24
49	9.38	30.187	4.59	23.32	75	9.39	30.26	23.38	452	0.35
73	9.39	30.257	4.54	23.38	100	9.39	30.24	23.36	454	0.47
98	9.39	30.244	4.48	23.37	125	9.39	30.24	23.36	454	0.58
122	9.39	30.242	4.51	23.36	150	9.38	30.24	23.37	455	0.69
147	9.38	30.243	4.53	23.37						
150	(9.38)a)	(30.243)a)	-	(23.37)						
9	CNAV WHITETHROAT; November 13, 1958; 1103 GCT; 48°40'N, 122°43'W; sounding, 60 fm; wind, 200°, 7 kt; weather, partly cloudy; sea, calm.									
0	9.30	30.187	4.65	23.33	0	9.30	30.19	23.33	455	0.00
2	9.34	30.199	4.66	23.34	10	9.34	30.19	23.33	456	0.05
6	9.34	30.194	4.74	23.33	20	9.36	30.20	23.34	456	0.09
16	9.36	30.201	4.70	23.34	30	9.37	30.21	23.34	455	0.14
46	9.34	30.204	4.71	23.34	50	9.34	30.21	23.34	455	0.23
71	9.37	30.222	4.88	23.35	75	9.37	30.23	23.36	454	0.34
86	9.37	30.277	4.54	23.39	100	9.36	30.36	23.46	445	0.46
100	(9.36)a)	(30.358)a)	-	(23.46)						
10	CNAV WHITETHROAT; November 13, 1958; 1140 GCT; 48°41'N, 122°41'W; sounding, 44 fm; wind, 200°, 7 kt; weather, partly cloudy; sea, calm.									
0	9.40	30.188	4.90	23.32	0	9.40	30.19	23.32	457	0.00
2	9.29	30.175	4.65	23.33	10	9.34	30.18	23.33	456	0.05
6	9.33	30.186	4.66	23.33	20	9.34	30.18	23.32	457	0.09
10	9.34	30.183	4.75	23.33	30	9.34	30.18	23.32	457	0.14
20	9.34	30.181	4.68	23.32	50	9.34	30.19	23.33	456	0.23
50	9.34	30.194	4.68	23.33	75	9.37	30.18	23.32	458	0.34
70	9.36	30.185	4.73	23.32						
75	(9.37)a)	(30.181)a)	-	(23.32)						

710

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
CNAV WHITETHROAT; November 13, 1958; 1323 GCT; 48°43.5'N, 122°58.5'W; sounding, 88 fm; wind, 110°, 11 kt; weather, cloudy; sea, missing.										11
0	9.50	30.562	4.55	23.60	0	9.50	30.56	23.60	430	0.00
2	9.22	30.528	4.66	23.61	10	9.33	30.52	23.59	431	0.04
6	9.33	30.527	4.64	23.60	20	9.35	30.53	23.60	431	0.09
10	9.33	30.523	4.64	23.59	30	9.36	30.53	23.60	431	0.13
20	9.35	30.531	5.03	23.60	50	9.34	30.52	23.59	432	0.22
50	9.34	30.523	4.96	23.59	75	9.34	30.53	23.59	432	0.32
75	9.34	30.525	4.52	23.59	100	9.36	30.53	23.59	432	0.43
100	9.36	30.530	4.52	23.59	125	9.37	30.52	23.58	434	0.54
124	9.37	30.519	4.51	23.58	150	9.34	30.53	23.60	433	0.65
149	9.34	30.531	4.47	23.60						
150	(9.34)a)	(30.532)a)	-	(23.60)						
CNAV WHITETHROAT; November 13, 1958; 1418 GCT; 48°46.5'N, 123°03'W; sounding, 90 fm; wind, 210°, 16 kt; weather, overcast; sea, missing.										12
0	9.30	29.935	4.72	23.14	0	9.30	29.94	23.14	474	0.00
2	9.28	29.691	4.52	22.95	10	9.29	30.13	23.29	460	0.05
6	9.30	30.065	4.53	23.24	20	9.31	30.18	23.33	456	0.09
10	9.29	30.132	4.52	23.29	30	9.32	30.22	23.36	454	0.14
20	9.31	30.181	4.52	23.33	50	9.30	30.27	23.40	450	0.23
50	9.30	30.271	4.49	23.40	75	9.30	30.28	23.41	449	0.34
75	9.30	30.282	4.49	23.41	100	9.30	30.30	23.42	449	0.46
100	9.30	30.295	4.49	23.42	125	9.32	30.33	23.44	447	0.57
125	9.32	30.332	4.49	23.44	150	9.31	30.36	23.47	445	0.68
150	9.31	30.362	4.47	23.47						
CNAV WHITETHROAT; November 13, 1958; 1656 GCT; 48°57'N, 123°05.5'W; sounding, 76 fm; wind, 210°, 15 kt; weather, cloudy; sea, moderate.										13
0	8.80	28.992	5.33	22.48	0	8.80	28.99	22.48	537	0.00
2	9.26	29.084	5.11	22.48	10	9.34	29.18	22.55	531	0.05
6	9.30	29.085	5.19	22.48	20	9.43	29.69	22.93	495	0.10
10	9.34	29.182	5.11	22.55	30	9.47	30.02	23.18	471	0.15
20	9.43	29.689	4.86	22.93	50	9.39	30.14	23.29	461	0.25
50	9.39	30.142	4.66	23.29	75	9.38	30.27	23.39	452	0.36
75	9.38	30.269	4.53	23.39	100	9.37	30.42	23.50	441	0.47
100	9.37	30.418	4.40	23.50	125	9.38	30.43	23.51	440	0.58
125	9.38	30.434	4.40	23.51						
CNAV WHITETHROAT; November 13, 1958; 1944 GCT; 49°07'N, 123°30'W; sounding, 200 fm; wind, 220°, 3 kt; weather, missing; sea, calm.										14
0	9.30	27.417	6.37	21.18	0	9.30	27.42	21.18	662	0.00
2	9.30	27.404	6.16	21.17	10	9.62	27.95	21.54	627	0.06
6	9.41	27.596	6.06	21.30	20	9.84	29.10	22.41	544	0.12
10	9.62	27.946	5.88	21.54	30	9.91	29.77	22.91	496	0.18
19	9.82	29.007	4.50	22.34	50	9.70	29.77	22.95	493	0.28
48	9.70	29.732	3.72	22.92	75	9.82	30.13	23.21	469	0.40
72	9.81	30.095	3.61	23.18	100	9.81	30.30	23.34	456	0.51
97	9.82	30.271	3.78	23.32	125	9.73	30.54	23.54	438	0.62
121	9.74	30.499	3.82	23.51	150	9.64	30.75	23.72	421	0.73
145	9.66	30.713	3.74	23.69	175	9.55	30.89	23.85	409	0.84
169	9.56	30.856	3.68	23.82	200	9.53	31.04	23.96	399	0.94
193	9.54	31.007	3.53	23.94	250	9.50	30.88	23.84	411	1.14
242	9.50	31.154	3.35	24.06	300	9.53	27.28	21.04	678	1.42
290	9.52	(28.265)b)	3.14	(21.81)						
300	(9.53)a)	(27.285)a)	-	(21.04)						

a) Value extrapolated by three-point parabolic method.
b) Value interpolated by three-point parabolic method.

POG

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OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
15	CNAV WHITETHROAT; November 14, 1958; 0623 GCT; 49°14'N, 123°47'W; sounding, 193 fm; wind, 040°, 10 kt; weather, missing; sea, moderate.									
0	8.90	27.145	6.78	21.02	0	8.90	27.14	21.02	676	0.00
2	9.14	27.200	6.47	21.03	10	9.32	27.34	21.12	668	0.07
6	9.14	27.221	6.81	21.05	20	9.92	28.23	21.71	611	0.13
10	9.32	27.345	6.74	21.12	30	10.18	28.96	22.25	560	0.19
20	9.92	28.227	5.77	21.71	50	9.66	30.00	23.13	476	0.29
50	9.66	29.996	3.47	23.13	75	9.88	30.28	23.32	458	0.41
75	9.88	30.284	3.45	23.32	100	9.97	30.55	23.51	440	0.52
100	9.97	30.545	3.47	23.51	125	9.83	30.74	23.68	424	0.63
124	9.84	30.734	3.52	23.68	150	9.69	30.90	23.82	411	0.74
149	9.70	30.891	3.32	23.82	175	9.57	30.95	23.89	405	0.84
174	9.57	30.949	3.35	23.89	200	9.49	31.03	23.96	399	0.94
199	9.49	31.028	3.16	23.96	250	9.45	31.10	24.02	394	1.14
249	9.45	31.094	3.14	24.02	300	9.52	31.21	24.10	387	1.34
299	9.52	31.209	3.07	24.10						
339	9.54	31.297	3.09	24.16						
16	CNAV WHITETHROAT; November 14, 1958; 0912 GCT; 49°18'N, 123°42.5'W; sounding, 132 fm; wind, 360°, 12 kt; weather, cloudy; sea, slight.									
0	8.80	23.214	6.77	17.98	0	8.80	23.21	17.98	970	0.00
2	8.66	23.258	6.81	18.03	10	9.55	26.82	20.68	710	0.08
6	9.49	26.610	6.49	20.52	20	9.84	28.88	22.23	561	0.15
10	9.55	26.822	6.32	20.68	30	9.97	30.09	23.15	473	0.20
20	9.84	28.875	4.85	22.23	50	9.73	29.99	23.11	477	0.30
50	9.73	29.988	3.54	23.11	75	9.93	30.37	23.38	452	0.41
75	9.93	30.372	3.51	23.38	100	9.94	30.56	23.52	439	0.52
100	9.94	30.559	3.52	23.52	125	9.82	30.73	23.68	425	0.63
125	9.82	30.732	3.31	23.68	150	9.48	30.83	23.81	413	0.74
150	9.48	30.827	3.44	23.81	175	9.57	30.98	23.91	404	0.84
175	9.57	30.977	3.44	23.91	200	9.60	31.06	23.97	398	0.94
200	9.60	31.063	3.31	23.97						
220	9.57	31.117	3.28	24.02						
17	CNAV WHITETHROAT; November 14, 1958; 1023 GCT; 49°23'N, 123°37'W; sounding, 96 fm; wind, missing; weather, cloudy; sea, calm.									
0	8.40	21.955	6.73	17.05	0	8.40	21.95	17.05	1059	0.00
2	8.29	22.155	6.61	17.22	10	9.66	27.19	20.95	684	0.09
6	8.65	22.810	6.42	17.68	20	9.84	28.59	22.01	582	0.15
10	9.66	27.188	4.85	20.95	30	9.92	29.52	22.72	514	0.21
20	9.84	28.594	4.22	22.01	50	9.80	30.01	23.12	477	0.30
49	9.80	29.981	3.68	23.10	75	9.90	30.26	23.29	460	0.42
74	9.90	30.245	3.70	23.29	100	9.88	30.53	23.51	440	0.54
99	9.88	30.518	3.65	23.50	125	9.81	30.67	23.63	429	0.64
124	9.81	30.664	3.55	23.63	150	9.72	30.75	23.71	422	0.75
148	9.72	30.739	3.43	23.70						
168	9.70	30.916	0.11	23.84						
18	CNAV WHITETHROAT; November 14, 1958; 1520 GCT; 49°23'N, 123°37'W; sounding, 96 fm; wind, 300°, 5 kt; weather, cloudy; sea, calm.									
0	8.20	21.606	6.67	16.80	0	8.20	21.61	16.80	1083	0.00
2	8.50	22.200	6.51	17.23	10	9.79	27.52	21.19	661	0.09
6	9.41	25.445	5.38	19.63	20	9.83	29.48	22.70	516	0.15
10	9.79	27.523	5.58	21.19	30	9.86	30.57	23.54	436	0.19
20	9.83	29.479	3.74	22.70	50	9.88	30.15	23.22	467	0.28
50	9.88	30.154	3.57	23.22	75	9.90	30.38	23.39	451	0.40
75	9.90	30.379	3.68	23.39	100	9.82	30.51	23.51	440	0.51
100	9.82	30.514	3.64	23.51	125	9.82	30.60	23.58	434	0.62
125	9.82	30.603	3.55	23.58	150	9.64	30.78	23.74	419	0.73
150	9.64	30.776	3.48	23.74						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

19

CNAV WHITETHROAT; November 14, 1958; 1719 GCT; 49°17.5'N, 123°43'W; sounding, missing; wind, 260°, 10 kt; weather, missing; sea, moderate.

0	8.30	21.675	6.93	16.84	0	8.30	21.67	16.84	1079	0.00
2	8.30	21.772	6.84	16.92	10	9.77	27.53	21.20	660	0.09
5	9.30	26.960	6.73	20.82	20	10.02	28.86	22.19	565	0.15
9	9.70	27.413	6.35	21.12	30	10.06	29.67	22.81	506	0.20
18	9.98	28.636	5.15	22.02	50	9.68	30.12	23.23	466	0.30
45	9.67	29.994	3.53	23.13	75	9.92	30.34	23.36	454	0.42
68	9.88	30.277	3.43	23.31	100	9.95	30.53	23.50	442	0.53
91	9.98	30.456	3.50	23.44	125	9.77	30.70	23.66	426	0.64
113	9.83	30.626	3.47	23.59	150	9.66	30.84	23.79	414	0.74
136	9.74	30.757	3.37	23.71	175	9.61	30.96	23.89	405	0.84
159	9.60	30.898	3.30	23.84	200	9.63	31.04	23.94	401	0.95
181	9.63	30.983	3.29	23.90	250	9.53	31.08	23.99	397	1.15
226	9.60	31.075	3.19	23.98						
250	(9.53)a)	(31.079)a)	-	(23.99)						

20

CNAV WHITETHROAT; November 14, 1958; 1842 GCT; 49°14'N, 123°47'W; sounding, missing; wind, 280°, 15 kt; weather, missing; sea, moderate.

0	8.60	24.944	6.94	19.35	0	8.60	24.94	19.35	837	0.00
2	8.59	25.777	6.83	20.00	10	9.48	27.64	21.32	648	0.07
6	9.43	27.607	6.29	21.31	20	9.82	28.83	22.19	565	0.14
10	9.48	27.635	6.29	21.32	30	9.96	29.58	22.76	511	0.19
20	9.82	28.825	5.27	22.19	50	9.64	29.80	22.98	490	0.29
50	9.64	29.795	3.92	22.98	75	9.70	30.08	23.19	471	0.41
75	9.70	30.076	3.52	23.19	100	9.82	30.40	23.42	449	0.53
100	9.82	30.399	3.52	23.42	125	9.80	30.69	23.65	428	0.64
125	9.80	30.689	3.44	23.65	150	9.68	30.83	23.78	416	0.74
150	9.68	30.830	3.27	23.78	175	9.58	30.98	23.91	403	0.84
175	9.58	30.983	3.23	23.91	200	9.56	31.01	23.93	401	0.95
200	9.56	31.009	3.14	23.93	250	9.37	31.14	24.07	389	1.14
225	9.49	31.062	3.07	23.99						
250	(9.37)a)	(31.142)a)	-	(24.07)						

21

CNAV WHITETHROAT; November 14, 1958; 2115 GCT; 49°24.5'N, 124°03'W; sounding, 196 fm; wind, 280°, 15 kt; weather, partly cloudy; sea, rough.

0	8.80	26.100	6.74	20.22	0	8.80	26.10	20.22	753	0.00
2	8.55	25.382	6.89	19.70	10	9.44	27.86	21.50	631	0.07
6	9.16	27.557	6.31	21.31	20	9.75	28.61	22.04	580	0.13
10	9.44	27.857	6.10	21.50	30	9.91	29.21	22.48	537	0.19
20	9.75	28.610	5.43	22.04	50	9.76	29.98	23.10	478	0.29
50	9.76	29.981	3.53	23.10	75	9.88	30.28	23.31	459	0.40
75	9.88	30.277	3.46	23.31	100	9.90	30.56	23.53	438	0.52
100	9.90	30.562	3.52	23.53	125	9.88	30.66	23.61	431	0.63
125	9.88	30.662	3.44	23.61	150	9.71	30.85	23.79	414	0.73
150	9.71	30.854	3.33	23.79	175	9.68	30.93	23.85	409	0.84
175	9.68	30.929	3.33	23.85	200	9.57	31.00	23.93	402	0.94
200	9.57	31.000	3.30	23.93	250	9.42	31.09	24.02	394	1.14
250	9.42	31.089	3.07	24.02	300	9.45	31.17	24.08	389	1.34
300	9.45	31.171	3.07	24.08						
350	9.50	31.243	3.10	24.13						

22

CNAV WHITETHROAT; November 15, 1958; 0242 GCT; 49°38.5'N, 124°41.5'W; sounding, 70 fm; wind, 310°, 25 kt; weather, partly cloudy; sea, rough.

0	8.20	28.541	6.44	22.21	0	8.20	28.54	22.21	563	0.00
2	9.39	28.521	6.28	22.02	10	9.41	28.50	22.00	583	0.06
5	9.39	28.498	6.37	22.01	20	9.41	28.52	22.02	581	0.12
9	9.41	28.499	6.27	22.00	30	9.42	28.77	22.21	563	0.17
18	9.41	28.498	6.27	22.00	50	9.46	29.68	22.91	496	0.28
45	9.46	29.554	4.34	22.82	75	9.48	30.05	23.20	470	0.40
68	9.44	29.939	3.67	23.12	100	9.67	30.39	23.43	448	0.52
91	9.64	30.273	3.33	23.35						
113	9.67	30.537	3.25	23.55						

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
23	CNAV WHITETHROAT; November 15, 1958; 0447 GCT; 49°44.5'N, 124°48.5'W; sounding, 88 fm; wind, 300°, 15 kt; weather, clear; sea, rough.									
0	9.10	28.684	6.21	22.19	0	9.10	28.68	22.19	564	0.00
2	9.17	28.703	6.10	22.20	10	9.18	28.70	22.20	564	0.06
6	9.17	28.695	6.28	22.19	20	9.26	28.86	22.31	554	0.11
10	9.18	28.703	6.22	22.20	30	9.32	29.06	22.45	540	0.17
20	9.26	28.857	5.97	22.31	50	9.38	29.60	22.86	501	0.27
50	9.38	29.596	4.32	22.86	75	9.44	29.78	23.00	489	0.40
75	9.44	29.779	4.06	23.00	100	9.46	30.04	23.20	470	0.52
99	9.45	30.025	3.75	23.19	125	9.74	30.66	23.64	429	0.63
124	9.74	30.650	3.30	23.63	150	9.65	30.72	23.70	423	0.74
149	9.66	30.731	3.23	23.70						
150	(9.65)a)	(30.723)a)	-	(23.70)						
24	CNAV WHITETHROAT; November 15, 1958; 0641 GCT; 49°44'N, 124°40'W; sounding, 170-85 fm; wind, 320°, 18 kt; weather, clear; sea, rough.									
0	9.20	27.933	6.63	21.59	0	9.20	27.93	21.59	622	0.00
2	9.31	28.195	6.31	21.78	10	9.35	28.25	21.82	601	0.06
5	9.34	28.223	6.24	21.80	20	9.54	28.43	21.93	590	0.12
8	9.34	28.235	6.24	21.81	30	9.77	28.90	22.26	558	0.18
16	9.44	28.294	6.25	21.84	50	9.54	29.52	22.78	509	0.29
25	9.71	28.703	5.86	22.12	75	9.60	30.04	23.17	472	0.41
45	9.55	29.382	4.84	22.67	100	9.64	30.24	23.32	458	0.52
65	9.58	29.878	3.99	23.05	125	9.70	30.43	23.46	446	0.64
86	9.62	30.142	3.54	23.25	150	9.75	30.59	23.58	435	0.75
106	9.65	30.266	3.44	23.34	175	9.70	30.70	23.67	426	0.86
127	9.71	30.446	3.33	23.47	200	9.60	30.78	23.75	419	0.96
147	9.75	30.572	3.33	23.56						
188	9.63	30.740	3.24	23.71						
228	9.53	30.861	3.19	23.82						
25	CNAV WHITETHROAT; November 15, 1958; 0906 GCT; 49°48.5'N, 124°52'W; sounding, 170 fm; wind, 320°, 20 kt; weather, clear; sea, rough.									
0	8.50	28.451	6.43	22.10	0	8.50	28.45	22.10	574	0.00
2	9.09	28.389	6.35	21.97	10	9.08	28.40	21.97	586	0.06
6	9.06	28.395	6.55	21.98	20	9.13	28.43	22.00	584	0.12
10	9.08	28.396	6.31	21.97	30	9.20	28.64	22.15	569	0.18
19	9.12	28.423	6.30	21.99	50	9.41	29.49	22.78	510	0.28
48	9.40	29.443	4.62	22.74	75	9.37	29.86	23.07	482	0.41
73	9.36	29.816	3.81	23.04	100	9.56	30.49	23.53	438	0.52
97	9.54	30.443	3.29	23.50	125	9.72	30.67	23.65	428	0.63
122	9.72	30.655	3.30	23.63	150	9.66	30.77	23.73	420	0.74
146	9.66	30.757	3.30	23.72	175	9.69	30.82	23.76	417	0.84
170	9.70	30.809	3.39	23.76	200	9.58	30.84	23.80	414	0.95
194	9.60	30.838	3.14	23.79	250	9.49	30.88	23.85	410	1.16
244	9.50	30.882	3.11	23.84	300	9.40	30.88	23.86	410	1.36
294	9.41	30.882	3.02	23.86						
300	(9.40)a)	(30.879)a)	-	(23.86)						
26	CNAV WHITETHROAT; November 15, 1958; 1209 GCT; 50°05'N, 125°07'W; sounding, 130 fm; wind, 310°, 16 kt; weather, clear; sea, moderate.									
0	8.50	28.287	5.43	21.97	0	8.50	28.29	21.97	586	0.00
2	8.72	28.236	5.54	21.90	10	8.88	28.30	21.93	590	0.06
6	8.72	28.239	5.49	21.90	20	9.08	29.06	22.49	536	0.12
10	8.88	28.299	5.46	21.93	30	9.21	29.59	22.88	499	0.17
20	9.08	29.059	4.24	22.49	50	9.26	29.96	23.16	473	0.26
50	9.26	29.958	3.51	23.16	75	9.40	30.33	23.43	447	0.38
75	9.40	30.332	3.33	23.43	100	9.52	30.54	23.58	434	0.49
99	9.52	30.535	3.43	23.57	125	9.56	30.65	23.65	427	0.60
124	9.56	30.645	3.23	23.65	150	9.48	30.72	23.72	421	0.71
149	9.48	30.718	3.20	23.72	175	9.43	30.77	23.77	416	0.81
173	9.43	30.769	3.16	23.77	200	9.43	30.81	23.80	414	0.92
197	9.43	30.807	3.12	23.80	250	9.38	30.83	23.82	413	1.12
226	9.41	30.829	3.14	23.82						
250	(9.38)a)	(30.827)a)	-	(23.82)						

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

27

CNAV WHITETHROAT; November 15, 1958; 1538 GCT; 49°59.5'N, 125°12.5'W; sounding, 23 fm; wind, 310°, 13 kt; weather, clear; sea, calm.

0	9.00	29.497	4.78	22.84	0	9.00	29.50	22.84	502	0.00
2	9.22	29.430	4.65	22.76	10	9.24	29.43	22.75	511	0.05
6	9.22	29.435	4.78	22.76	20	9.26	29.46	22.77	510	0.10
10	9.24	29.427	4.78	22.75	30	9.27	29.48	22.79	508	0.15
20	9.26	29.456	4.65	22.77						
40	9.27	29.509	4.66	22.81						

28

CNAV WHITETHROAT; November 15, 1958; 1604 GCT; 49°59.5'N, 125°12'W; sounding, 30 fm; wind, 310°, 12 kt; weather, clear; sea, calm.

0	8.70	29.512	4.75	22.90	0	8.70	29.51	22.90	497	0.00
2	9.23	29.522	4.63	22.83	10	9.26	29.54	22.83	503	0.05
6	9.24	29.533	4.73	22.83	20	9.26	29.56	22.85	502	0.10
10	9.26	29.536	4.71	22.83	30	9.26	29.57	22.86	501	0.15
19	9.26	29.557	4.62	22.85	50	9.26	29.56	22.85	502	0.25
48	9.26	29.558	4.67	22.85						
62	9.26	29.544	4.56	22.84						

29

CNAV WHITETHROAT; November 15, 1958; 2242 GCT; 49°59.5'N, 125°12'W; sounding, missing; wind, 310°, 10 kt; weather, clear; sea, calm.

0	8.50	28.582	5.81	22.20	0	8.50	28.58	22.20	564	0.00
2	8.71	28.520	5.65	22.12	10	9.33	28.43	21.96	587	0.06
32	9.22	29.510	4.57	22.82	20	9.61	28.68	22.12	572	0.12
57	9.38	30.398	3.54	23.49	30	9.34	29.33	22.66	520	0.17
67	9.41	30.660	3.02	23.69	50	9.36	30.14	23.29	460	0.27
75	(9.42)a)	(30.831)a)	-	(23.82)	75	9.42	30.83	23.82	410	0.38

30

CNAV WHITETHROAT; November 15, 1958; 2258 GCT; 49°59.5'N, 125°12.5'W; sounding, 27 fm; wind, 310°, 9 kt; weather, clear; sea, calm.

0	9.10	28.748	5.62	22.24	0	9.10	28.75	22.24	560	0.00
2	8.68	29.489	4.72	22.88	10	9.22	29.56	22.86	501	0.05
6	9.18	29.525	4.57	22.84	20	9.22	29.66	22.94	494	0.10
10	9.22	29.559	4.57	22.86						
20	9.22	29.661	4.55	22.94						

31

CNAV WHITETHROAT; November 16, 1958; 0455 GCT; 50°28'N, 126°08.5'W; sounding, missing; wind, 170°, 5 kt; weather, clear; sea, calm.

0	8.80	30.850	4.93	23.93	0	8.80	30.85	23.93	399	0.00
2	8.79	30.823	4.68	23.91	10	8.86	30.85	23.92	400	0.04
6	8.82	30.858	5.32	23.93	20	8.86	30.88	23.94	398	0.08
10	8.86	30.847	4.72	23.92	30	8.86	30.93	23.98	395	0.12
20	8.86	30.881	4.73	23.94	50	8.88	31.04	24.07	386	0.20
49	8.88	31.040	4.68	24.06	75	8.90	31.13	24.13	381	0.30
74	8.90	31.127	4.67	24.13	100	8.88	31.20	24.19	376	0.39
99	8.88	31.195	4.66	24.18	125	8.89	31.25	24.22	372	0.48
124	8.89	31.246	4.67	24.22	150	8.85	31.25	24.23	372	0.58
148	8.85	31.252	4.68	24.23	175	8.89	31.28	24.25	371	0.67
173	8.89	31.278	4.68	24.25	200	8.89	31.28	24.25	371	0.76
198	8.89	31.282	4.65	24.25	250	8.87	31.33	24.29	368	0.95
247	8.87	31.329	4.67	24.29						
250	(8.87)a)	(31.334)a)	-	(24.29)						

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
32	CNAV WHITETHROAT; November 16, 1958; 0550 GCT; 50°29'N, 126°09.5'W; sounding, missing; wind, 060°, 10 kt; weather, clear; sea, calm.									
0	8.60	30.881	4.87	23.98	0	8.60	30.88	23.98	394	0.00
2	8.84	(30.869)a)	4.71	(23.94)	10	8.87	30.88	23.94	398	0.04
5	8.84	30.862	4.77	23.93	20	8.93	30.91	23.96	396	0.08
9	8.86	30.875	4.72	23.94	30	8.94	30.94	23.98	395	0.12
18	8.92	30.905	4.72	23.95	50	8.88	30.99	24.02	390	0.20
45	8.88	30.977	4.66	24.01	75	8.90	31.07	24.08	385	0.30
67	8.90	31.036	4.75	24.06	100	8.90	31.17	24.16	378	0.39
90	8.90	31.132	4.68	24.13	125	8.88	31.23	24.21	374	0.49
112	8.89	31.209	4.69	24.19	150	8.86	31.25	24.23	372	0.58
135	8.86	31.231	4.64	24.22	175	8.88	31.29	24.26	370	0.67
157	8.87	31.266	4.69	24.24	200	8.88	31.31	24.27	369	0.77
180	8.88	31.296	4.68	24.26	250	8.87	31.32	24.28	369	0.95
225	8.88	31.303	4.68	24.27						
270	8.86	31.334	4.69	24.30						
33	CNAV WHITETHROAT; November 16, 1958; 0947 GCT; 50°28'N, 126°08'W; sounding, 160 fm; wind, 060°, 15 kt; weather, clear; sea, calm.									
0	8.60	30.797	4.98	23.92	0	8.60	30.80	23.92	400	0.00
2	8.82	30.787	4.96	23.88	10	8.82	30.83	23.91	401	0.04
5	8.80	(30.809)a)	4.78	(23.90)	20	8.83	30.81	23.89	402	0.08
9	8.82	30.825	4.84	23.90	30	8.85	30.84	23.91	401	0.12
17	8.83	30.814	4.88	23.89	50	8.87	30.93	23.98	395	0.20
43	8.86	30.905	4.78	23.96	75	8.88	30.98	24.02	391	0.30
65	8.88	30.966	4.67	24.01	100	8.90	30.99	24.02	391	0.40
87	8.88	30.990	4.72	24.02	125	8.88	30.97	24.01	393	0.50
108	8.91	30.982	4.62	24.01	150	8.89	31.08	24.09	385	0.59
130	8.86	30.965	4.64	24.01	175	8.89	31.08	24.09	386	0.69
152	8.90	31.099	4.59	24.11	200	8.89	31.15	24.15	381	0.79
173	8.89	31.080	4.62	24.09	250	8.87	31.31	24.28	370	0.98
217	8.89	31.247	4.59	24.22						
238	8.88	31.293	4.66	24.26						
250	(8.87)b)	(31.310)b)	-	(24.28)						
34	CNAV WHITETHROAT; November 16, 1958; 1039 GCT; 50°28.5'N, 126°09'W; sounding, 155 fm; wind, 060°, 12 kt; weather, clear; sea, slight.									
0	8.50	30.668	5.02	23.83	0	8.50	30.67	23.83	408	0.00
2	8.68	30.648	4.92	23.79	10	8.79	30.70	23.81	410	0.04
6	8.72	30.657	4.85	23.79	20	8.81	30.79	23.88	404	0.08
9	8.78	30.692	4.88	23.81	30	8.85	30.85	23.92	400	0.12
19	8.81	30.781	4.68	23.87	50	8.91	30.89	23.94	398	0.20
47	8.91	30.883	4.72	23.94	75	8.87	30.95	23.99	394	0.30
70	8.88	30.939	4.73	23.98	100	8.87	30.96	24.01	393	0.40
94	8.86	30.953	4.72	24.00	125	8.90	31.05	24.07	387	0.50
117	8.91	31.004	4.71	24.03	150	8.86	31.22	24.20	375	0.60
141	8.86	31.192	4.64	24.19	175	8.89	31.20	24.19	376	0.69
164	8.88	31.203	4.53	24.19	200	8.90	31.21	24.19	377	0.78
188	8.90	31.203	4.67	24.19	250	8.89	31.28	24.25	372	0.97
235	8.90	31.254	4.59	24.23						
259	8.89	(31.306)b)	4.59	(24.27)						
35	CNAV WHITETHROAT; November 18, 1958; 1647 GCT; 50°41.5'N, 127°13.5'W; sounding, 71 fm; wind, 120°, 7 kt; weather, cloudy; sea, slight.									
0	8.40	31.573	5.65	24.55	0	8.40	31.57	24.55	339	0.00
2	8.42	31.564	5.85	24.54	10	8.44	31.56	24.54	341	0.03
6	8.44	31.567	5.75	24.54	20	8.44	31.57	24.54	341	0.07
10	8.44	31.561	5.60	24.54	30	8.48	31.62	24.58	338	0.10
20	8.44	31.568	5.70	24.54	50	8.66	31.85	24.73	323	0.17
50	8.66	31.853	5.80	24.73	75	8.68	31.97	24.82	315	0.25
75	8.68	31.970	5.01	24.82						

a) Value interpolated by three-point parabolic method.

b) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

36

CNAV WHITETHROAT; November 18, 1958; 1813 GCT; 50°45'N, 127°20.5'W; sounding, 145 fm; wind, 210°, 9 kt; weather, cloudy; sea, slight.

0	8.25	31.395	6.05	24.43	0	8.25	31.39	24.43	351	0.00
2	8.27	31.445	5.85	24.47	10	8.36	31.48	24.48	346	0.04
6	8.32	31.464	5.99	24.48	20	8.42	31.53	24.51	343	0.07
10	8.36	31.479	6.09	24.48	30	8.48	31.58	24.54	341	0.10
20	8.42	31.528	6.05	24.51	50	8.60	31.68	24.60	335	0.17
50	8.60	31.678	5.85	24.60	75	8.69	31.73	24.63	333	0.26
75	8.69	31.728	5.75	24.63	100	9.02	31.86	24.68	328	0.34
100	9.02	31.861	5.72	24.68	125	8.78	32.24	25.01	297	0.42
125	8.78	32.238	4.97	25.01	150	8.52	32.27	25.08	291	0.49
150	8.52	32.273	4.84	25.08	175	8.28	32.45	25.26	275	0.56
175	8.28	32.452	4.17	25.26	200	8.28	32.53	25.32	269	0.63
200	8.28	32.533	4.08	25.32	250	8.02	32.78	25.56	248	0.76
250	8.02	32.785	3.64	25.56						

37

CNAV WHITETHROAT; November 18, 1958; 1910 GCT; 50°49'N, 127°17.5'W; sounding, 73 fm; wind, 100°, 5 kt; weather, cloudy; sea, slight.

0	8.25	31.281	-	24.34	0	8.25	31.28	24.34	359	0.00
2	8.30	31.278	5.55	24.34	10	8.42	31.43	24.44	350	0.04
6	8.37	31.346	5.73	24.38	20	8.44	31.53	24.51	344	0.07
10	8.42	31.429	5.37	24.44	30	8.46	31.59	24.55	340	0.10
19	8.44	31.521	5.66	24.50	50	8.48	31.58	24.55	341	0.17
49	8.48	31.581	6.06	24.55	75	8.50	31.61	24.57	339	0.26
73	8.50	31.609	5.60	24.56	100	8.55	31.68	24.61	335	0.34
97	8.54	31.656	5.54	24.60						
122	8.70	31.951	4.77	24.80						

38

CNAV WHITETHROAT; November 18, 1958; 1956 GCT; 50°52'N, 127°14.5'W; sounding, 70 fm; wind, 100°, 6 kt; weather, cloudy; sea, calm.[a]

0	8.40	31.191	5.44	24.25	0	8.40	31.19	24.25	368	0.00
2	8.26	31.185	5.39	24.27	10	8.30	31.21	24.28	365	0.04
6	8.28	31.208	5.43	24.28	20	8.34	31.26	24.32	362	0.07
10	8.30	31.213	5.40	24.28	30	8.36	31.30	24.34	360	0.11
20	8.34	31.260	5.34	24.32	50	8.36	31.34	24.38	357	0.18
49	8.36	31.337	5.37	24.37	75	8.38	31.44	24.45	350	0.27
73	8.38	31.436	5.47	24.45	100	8.42	31.49	24.48	348	0.36
98	8.42	31.481	5.49	24.48						
122	8.47	31.538	5.60	24.51						

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CNAV WHITETHROAT; November 18, 1958; 2248 GCT; 51°00.5'N, 127°51'W; sounding, 80 fm; wind, 120°, 5 kt; weather, cloudy; sea, rough.

0	9.60	31.867	6.24	24.60	0	9.60	31.87	24.60	335	0.00
2	9.68	31.848	6.23	24.57	10	9.64	31.85	24.58	337	0.03
6	9.65	31.852	6.22	24.58	20	9.68	31.84	24.57	338	0.07
10	9.64	31.849	6.16	24.58	30	9.69	31.85	24.56	339	0.10
20	9.68	31.845	6.17	24.57	50	9.65	31.86	24.58	337	0.17
50	9.65	31.860	6.09	24.58	75	9.57	31.89	24.62	334	0.25
75	9.57	31.892	5.94	24.62	100	9.34	31.88	24.65	332	0.34
99	9.36	31.871	5.87	24.64	125	8.43	32.53	25.30	271	0.41
124	8.48	(32.491)b)	5.59	(25.26)	150	(6.65)	(33.83)	(26.57)	(150)	(0.47)
139	7.54	33.178	3.25	25.93						

a) The following silicate values were obtained for this station: 2 m, 50.6; 10, 49.3; 20, 49.1; 49, 49.4; 98, 48.1; 122, 48.2 μg at/L.

b) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
40	CNAV WHITETHROAT; November 19, 1958; 0158 GCT; 50°56.5'N, 128°32'W; sounding, 50 fm; wind, 260°, 8 kt; weather, partly cloudy; sea, moderate.									
0	9.50	31.857	6.29	24.60	0	9.50	31.86	24.60	334	0.00
2	9.80	31.825	6.36	24.53	10	9.82	31.83	24.53	342	0.03
6	9.80	31.823	6.39	24.53	20	9.82	31.83	24.53	342	0.07
10	9.82	31.827	6.26	24.53	30	9.83	31.83	24.53	342	0.10
20	9.82	31.827	6.29	24.53	50	9.87	31.86	24.55	341	0.17
50	9.87	31.861	6.29	24.55						
41	CNAV WHITETHROAT; November 19, 1958; 0307 GCT; 50°47.5'N, 128°29'W; sounding, 35 fm; wind, 210°, 13 kt; weather, partly cloudy; sea, moderate.									
0	9.40	31.673	6.41	24.48	0	9.40	31.67	24.48	346	0.00
2	9.66	31.630	6.39	24.40	10	9.70	31.64	24.41	353	0.04
6	9.68	31.614	6.39	24.39	20	9.77	31.73	24.46	348	0.07
10	9.70	31.644	6.14	24.41	30	9.81	31.78	24.49	346	0.10
20	9.77	31.732	5.63	24.46	50	9.81	31.75	24.47	348	0.18
49	9.81	31.747	6.39	24.47	75	9.80	31.89	24.58	338	0.26
74	9.80	31.882	6.29	24.58						
75	(9.80)a)	(31.890)a)	-	(24.58)						
42	CNAV WHITETHROAT; November 19, 1958; 0454 GCT; 50°50'N, 128°48'W; sounding, missing; wind, 200°, 15 kt; weather, missing; sea, rough.									
0	9.70	31.823	6.39	24.55	0	9.70	31.82	24.55	340	0.00
2	9.82	31.755	6.29	24.47	10	9.83	31.76	24.48	347	0.04
6	9.80	31.816	6.34	24.52	20	9.82	31.76	24.48	347	0.07
10	9.83	31.760	5.12	24.48	30	9.82	31.77	24.49	346	0.10
20	9.82	31.762	6.34	24.48	50	9.83	31.82	24.52	343	0.17
50	9.83	31.818	6.39	24.52	75	9.82	31.85	24.55	341	0.26
74	9.82	31.848	6.39	24.55						
75	(9.82)a)	(31.849)a)	-	(24.55)						
43	CNAV WHITETHROAT; November 19, 1958; 0602 GCT; 50°52'N, 128°56.5'W; sounding, 45 fm; wind, direction missing, 12 kt; weather, missing; sea, rough.									
0	9.80	31.866	6.50	24.56	0	9.80	31.87	24.56	338	0.00
2	9.75	31.840	5.73	24.55	10	9.76	31.83	24.54	340	0.03
6	9.75	31.833	5.37	24.55	20	9.80	31.92	24.60	335	0.07
10	9.76	31.832	6.14	24.54	30	9.82	31.96	24.63	332	0.10
20	9.80	31.919	6.14	24.60	50	9.83	31.92	24.60	335	0.17
49	9.83	31.930	6.14	24.61						
50	(9.83)a)	(31.924)a)	-	(24.60)						
44	CNAV WHITETHROAT; November 19, 1958; 0802 GCT; 50°55.5'N, 129°15'W; sounding, 60 fm; wind, 200°, 10 kt; weather, missing; sea, rough.									
0	9.60	32.019	6.30	24.71	0	9.60	32.02	24.71	324	0.00
2	9.70	31.953	6.38	24.65	10	9.72	31.94	24.63	332	0.03
6	9.69	31.940	6.41	24.64	20	9.74	31.97	24.65	330	0.07
10	9.72	31.941	6.38	24.63	30	9.76	32.00	24.67	328	0.10
20	9.74	31.970	6.31	24.65	50	9.82	32.05	24.70	326	0.16
50	9.82	32.046	6.26	24.70	75	9.82	32.07	24.72	325	0.25
75	9.82	32.066	6.26	24.72						

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	σ_t g/L	δ cl/ton	ΔD dyn m

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CNAV WHITETHROAT; November 19, 1958; 1011 GCT; 51°03'N, 129°32'W; sounding, 230 fm; wind, 200°, 10 kt; weather, partly cloudy; sea, rough.[a]

0	9.90	32.424	6.32	24.98	0	9.90	32.42	24.98	298	0.00
4	10.30	32.389	6.36	24.89	10	10.47	32.37	24.84	312	0.03
14	10.30	32.383	6.33	24.88	20	10.30	32.38	24.88	308	0.06
43	10.34	32.397	6.35	24.89	30	10.31	32.38	24.88	308	0.09
67	10.27	32.387	6.34	24.89	50	10.33	32.40	24.89	308	0.16
91	7.54	33.017	4.87	25.81	75	9.66	32.53	25.10	288	0.23
114	7.10	33.450	4.17	26.21	100	7.11	33.21	26.01	202	0.29
138	7.07	33.595	3.98	26.32	125	7.03	33.56	26.30	175	0.34
161	7.07	33.786	3.34	26.47	150	7.07	33.69	26.40	166	0.38
184	6.70	33.887	2.79	26.60	175	6.89	33.86	26.56	151	0.42
229	6.58	33.902	2.60	26.63	200	6.57	33.92	26.65	143	0.46
276	6.49	33.916	2.38	26.66	250	6.54	33.91	26.64	144	0.53
322	6.14	33.961	1.94	26.74	300	6.34	33.94	26.69	140	0.60
369	5.71	33.980	3.13	26.80	400	5.39	33.98	26.84	126	0.74
400	(5.39)b)	(33.978)b)	-	(26.84)						

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CNAV WHITETHROAT; November 19, 1958; 1525 GCT; 51°23'N, 128°36.5'W; sounding, 115 fm; wind, 120°, 38 kt; weather, overcast; sea, rough.

0	10.00	31.754	6.29	24.44	0	10.00	31.75	24.44	350	0.00
2	9.38	31.748	6.39	24.54	10	9.38	31.73	24.53	342	0.04
6	9.38	31.738	5.22	24.53	20	9.37	31.74	24.53	342	0.07
10	9.38	31.734	5.37	24.53	30	9.40	31.74	24.53	342	0.10
19	9.37	31.736	-	24.53	50	9.54	31.77	24.53	342	0.17
48	9.53	31.759	5.22	24.52	75	9.55	32.05	24.75	322	0.26
72	9.60	31.999	5.63	24.70	100	8.69	32.67	25.36	264	0.33
97	8.82	32.583	3.84	25.28	125	7.49	33.42	26.13	191	0.39
121	7.62	33.341	3.02	26.05	150	7.16	33.71	26.40	166	0.43
145	7.16	33.602	2.71	26.32						
152	(7.17)b)	33.756	2.61	(26.44)						

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CNAV WHITETHROAT; November 21, 1958; 1825 GCT; 51°49'N, 128°32'W; sounding, 72 fm; wind, 160°, 10 kt; weather, overcast; sea, calm.[c]

0	9.00	31.865	6.72	24.69	0	9.00	31.86	24.69	326	0.00
2	9.17	31.700	7.21	24.53	10	9.19	31.70	24.53	342	0.03
6	9.16	31.708	6.67	24.54	20	9.22	31.72	24.54	340	0.07
10	9.19	31.696	6.79	24.53	30	9.27	31.75	24.56	340	0.10
19	9.22	31.720	6.96	24.54	50	9.38	31.79	24.57	338	0.17
48	9.37	31.784	6.53	24.57	75	9.40	31.81	24.58	338	0.26
72	9.39	31.804	6.79	24.58	100	9.51	31.84	24.59	337	0.34
97	9.48	31.826	6.83	24.58						
120	9.84	32.043	6.83	24.69						

48

CNAV WHITETHROAT; November 21, 1958; 2142 GCT; 52°12.5'N, 128°53'W; sounding, 100-65 fm; wind, 200°, 10 kt; weather, overcast; sea, moderate.

0	9.20	31.699	6.50	24.53	0	9.20	31.70	24.53	342	0.00
2	9.48	31.751	6.51	24.53	10	9.48	31.75	24.52	342	0.03
6	9.48	31.753	6.55	24.53	20	9.55	31.80	24.55	340	0.07
10	9.48	31.750	6.51	24.52	30	9.61	31.81	24.55	340	0.10
20	9.55	31.798	6.51	24.55	50	9.69	31.78	24.51	344	0.17
45	9.69	31.768	6.46	24.50	75	9.64	31.90	24.62	334	0.26
69	9.64	31.886	6.45	24.60	100	9.56	32.04	24.74	324	0.34
94	9.66	31.919	6.55	24.63						
108	9.37	32.269	4.93	24.95						

a) The following silicate values were obtained for this station: 0 m, 8.4; 4, 6.8; 14, 7.0; 43, 8.9; 67, 8.0; 91, 29.4; 114, 38.8; 138, 40.2; 161, 45.7; 184, 55.0; 229, 55.8; 276, 57.9; 322, 68,2; 369, 76.7 µg at/L.

b) Value extrapolated by three-point parabolic method.

c) The following silicate values were obtained for this station: 2 m, 50.6; 10, 49.3; 19, 49.1; 48, 49.4; 97, 48.1; 120, 48.2 µg at/L.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
49	CNAV WHITETHROAT; November 22, 1958; 0256 GCT; 52°24'N, 130°00'W; sounding, 140 fm; wind, 280°, 10 kt; weather, partly cloudy; sea, rough.									
0	9.90	32.355	6.34	24.93	0	9.90	32.36	24.93	304	0.00
2	8.96	32.338	6.24	25.06	10	8.97	32.34	25.07	291	0.03
6	8.96	32.337	6.43	25.06	20	8.83	32.36	25.10	287	0.06
10	8.97	32.341	6.28	25.07	30	8.73	32.37	25.12	285	0.09
20	8.83	32.359	6.41	25.10	50	8.66	32.37	25.14	285	0.14
50	8.66	32.370	6.25	25.14	75	7.82	33.07	25.80	221	0.21
75	7.82	33.066	2.84	25.80	100	7.11	33.36	26.13	190	0.26
100	7.11	33.358	2.11	26.13	125	6.74	33.54	26.32	173	0.31
125	6.74	33.537	1.99	26.32	150	6.38	33.68	26.48	158	0.35
150	6.38	33.677	2.06	26.48	175	6.24	33.73	26.55	152	0.39
175	6.24	33.735	2.06	26.55	200	6.10	33.80	26.62	146	0.42
200	6.10	33.801	2.06	26.62	250	5.87	33.90	26.72	136	0.50
250	5.87	33.901	2.06	26.72						
50	CNAV WHITETHROAT; November 22, 1958; 0723 GCT; 53°00'N, 130°19.5'W; sounding, 108 fm; wind, 290°, 5 kt; weather, missing; sea, calm.[a]									
0	9.40	32.014	6.37	24.74	0	9.40	32.01	24.74	321	0.00
2	9.45	31.995	6.28	24.72	10	9.47	32.01	24.73	323	0.03
6	9.45	32.005	6.34	24.73	20	9.59	32.06	24.75	321	0.06
10	9.47	32.011	6.34	24.73	30	9.68	32.11	24.77	319	0.10
20	9.59	32.057	6.36	24.75	50	9.78	32.23	24.85	312	0.16
50	9.78	32.229	6.19	24.85	75	9.77	32.32	24.92	305	0.24
75	9.77	32.323	5.94	24.92	100	9.35	32.38	25.03	295	0.31
100	9.35	32.377	6.10	25.03	125	8.76	32.65	25.34	266	0.38
125	8.76	32.652	4.39	25.34	150	8.06	32.91	25.64	238	0.45
150	8.06	32.907	3.73	25.64	175	7.64	33.13	25.88	215	0.50
175	7.64	33.134	3.28	25.88						
51	CNAV WHITETHROAT; November 22, 1958; 1150 GCT; 53°14.5'N, 131°12'W; sounding, 16 fm; wind, 260°, 7 kt; weather, partly cloudy; sea, calm.[b]									
0	8.50	32.242	6.33	25.06	0	8.50	32.24	25.06	291	0.00
2	8.55	32.206	6.48	25.02	10	8.56	32.16	24.99	298	0.03
6	8.58	32.213	6.32	25.02	20	8.62	32.22	25.02	295	0.06
10	8.56	32.159	6.34	24.99						
15	8.57	32.210	6.29	25.02						
20	8.62	32.221	6.31	25.02						
25	8.57	32.213	6.31	25.03						
52	CNAV WHITETHROAT; November 22, 1958; 1508 GCT; 53°37.5'N, 130°44.5'W; sounding, 75 fm; wind, 210°, 2 kt; weather, partly cloudy; sea, missing.[c]									
0	9.20	31.847	6.54	24.64	0	9.20	31.85	24.64	331	0.00
2	9.12	31.810	6.54	24.63	10	9.12	31.81	24.63	332	0.03
6	9.10	31.812	7.32	24.63	20	9.18	31.83	24.63	332	0.07
10	9.12	31.810	6.44	24.63	30	9.26	31.86	24.64	331	0.10
20	9.18	31.825	6.44	24.63	50	9.46	31.96	24.69	327	0.17
50	9.46	31.962	6.19	24.69	75	9.53	32.03	24.73	324	0.25
75	9.53	32.025	6.03	24.73	100	9.33	32.13	24.84	313	0.33
100	9.33	32.131	5.62	24.84	125	9.20	32.30	25.00	299	0.40
125	9.20	32.299	5.62	25.00						

a) The following silicate values were obtained for this station: 0 m, 22.6; 2, 22.1; 10, 21.1; 20, 20.1; 50, 17.1; 100, 20.1; 150, 38.1; 175, 49.0 µg at/L and the following nitrate values: 0 m, 10.1; 6, 9.9; 10, 9.8; 20, 8.4; 50, 9.1; 175, 15.6 µg at/L.

b) The following silicate values were obtained for this station: 0 m, 21.1; 2, 22.0; 6, 22.7; 10, 19.2; 15, 17.3; 20, 21.1; 25, 48.0 µg at/L and the following nitrate values: 0 m, 11.4; 6, 13.0; 15, 11.8; 20, 10.1; 25, 11.0 µg at/L.

c) The following silicate values were obtained for this station: 0 m, 27.5; 6, 25.6; 10, 25.1; 20, 26.9; 75, 25.1; 100, 31.6; 125, 35.1 µg at/L and the following nitrate values: 0 m, 9.9; 6, 9.2; 10, 10.0; 20, 11.4; 50, 8.2; 125, 9.4 µg at/L.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

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CNAV WHITETHROAT; November 22, 1958; 1720 GCT; 53°57'N, 131°00'W; sounding, 38 fm; wind, 300°, 5 kt; weather, partly cloudy; sea, calm.

0	8.20	30.731	6.58	23.92	0	8.20	30.73	23.92	399	0.00
2	8.16	30.737	6.50	23.93	10	8.90	31.41	24.35	359	0.04
6	8.38	30.812	6.56	23.96	20	9.12	31.67	24.52	343	0.07
10	8.90	31.409	6.50	24.35	30	9.27	31.86	24.64	332	0.11
20	9.12	31.668	6.52	24.52	50	9.39	32.02	24.75	322	0.17
50	9.39	32.018	6.27	24.75	75	9.04	32.16	24.91	306	0.25
70	9.15	32.141	6.00	24.88						
75	(9.04)a)	(32.158)a)	-	(24.91)						

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CNAV WHITETHROAT; November 22, 1958; 1945 GCT; 54°15.5'N, 131°06'W; sounding, 15 fm; wind, 160°, 3 kt; weather, partly cloudy; sea, calm.

0	8.10	31.618	6.48	24.63	0	8.10	31.62	24.63	332	0.00
2	8.04	31.697	6.28	24.70	10	7.95	31.71	24.72	323	0.03
6	8.02	31.706	6.29	24.71	20	7.82	31.72	24.75	320	0.06
10	7.95	31.710	6.35	24.72						
25	7.78	31.734	6.36	24.77						

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CNAV WHITETHROAT; November 22, 1958; 2057 GCT; 54°16.5'N, 131°01'W; sounding, 58 fm; wind, 160°, 5 kt; weather, cloudy; sea, calm.

0	8.90	31.855	6.49	24.70	0	8.90	31.86	24.70	326	0.00
2	8.89	31.819	6.42	24.67	10	8.98	31.83	24.66	329	0.03
6	8.97	31.839	6.38	24.67	20	9.20	31.99	24.76	320	0.07
10	8.98	31.829	6.43	24.66	30	9.28	32.09	24.82	314	0.10
20	9.20	31.994	6.22	24.76	50	9.04	32.07	24.84	312	0.16
50	9.04	32.070	6.38	24.84	75	8.60	32.10	24.93	304	0.24
75	8.60	32.096	6.48	24.93	100	8.18	32.12	25.01	297	0.31
100	8.18	32.116	6.60	25.01						

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CNAV WHITETHROAT; November 23, 1958; 0415 GCT; 54°11'N, 132°30'W; sounding, 40 fm; wind, 250°, 6 kt; weather, intermittent slight rain; sea, calm.

0	8.20	30.606	6.99	23.82	0	8.20	30.61	23.82	409	0.00
2	8.13	30.563	6.62	23.80	10	8.26	30.61	23.82	410	0.04
6	8.12	30.571	6.65	23.81	20	8.55	31.23	24.26	367	0.08
10	8.26	30.607	6.55	23.82	30	8.75	31.66	24.57	338	0.12
20	(8.55)b)	31.230	6.30	(24.26)	50	8.90	31.96	24.78	319	0.18
50	8.90	31.959	6.10	24.78	75	8.65	32.38	25.14	284	0.26
70	8.74	32.309	5.39	25.08						
75	(8.65)a)	(32.379)a)	-	(25.14)						

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CNAV WHITETHROAT; November 23, 1958; 0523 GCT; 54°18.5'N, 133°03.5'W; sounding, 250 fm; wind, 280°, 5 kt; weather, partly cloudy; sea, calm.

0	8.30	31.362	6.58	24.40	0	8.30	31.36	24.40	354	0.00
2	8.57	31.413	6.60	24.40	10	8.73	31.65	24.56	338	0.04
6	8.68	31.560	6.60	24.50	20	8.86	31.86	24.70	325	0.07
10	8.73	31.650	6.41	24.56	30	8.91	32.02	24.82	314	0.10
20	8.86	31.857	5.44	24.70	50	8.77	32.19	24.98	299	0.16
50	8.77	32.193	4.96	24.98	75	8.41	32.43	25.22	277	0.23
75	8.41	32.434	4.57	25.22	100	7.32	33.09	25.90	213	0.30
99	7.35	33.074	3.61	25.88	125	6.77	33.34	26.16	188	0.35
124	6.78	33.327	2.84	26.15	150	6.70	33.54	26.33	172	0.39
149	6.70	33.531	3.09	26.32	175	6.57	33.67	26.45	161	0.43
199	6.42	33.732	3.14	26.52	200	6.41	33.74	26.52	155	0.47
240	6.16	33.823	2.73	26.62	250	6.11	33.84	26.64	144	0.55
288	5.94	33.869	2.54	26.69	300	5.89	33.88	26.70	139	0.62
384	5.65	33.944	1.98	26.78	400	5.62	33.95	26.80	131	0.76
400	(5.62)a)	(33.954)a)	-	(26.80)						

a) Value extrapolated by three-point parabolic method.
b) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
58	CNAV WHITETHROAT; November 23, 1958; 0731 GCT; 54°28'N, 133°04'W; sounding, 59 fm; wind, 280°, 6 kt; weather, partly cloudy; sea, calm.									
0	8.30	30.601	6.82	23.81	0	8.30	30.60	23.81	410	0.00
2	8.12	30.603	6.65	23.83	10	8.38	31.58	24.56	339	0.04
6	8.34	31.155	6.50	24.23	20	8.39	31.87	24.79	317	0.07
10	8.38	31.581	6.50	24.56	30	8.39	32.04	24.91	305	0.10
20	8.39	31.871	6.31	24.79	50	8.38	31.99	24.88	309	0.16
50	8.38	31.988	6.52	24.88	75	7.83	32.67	25.49	251	0.23
75	7.83	32.668	4.72	25.49						
59	CNAV WHITETHROAT; November 23, 1958; 0908 GCT; 54°36'N, 132°59'W; sounding, 200 fm; wind, 280°, 8 kt; weather, partly cloudy; sea, calm.									
0	8.00	30.123	6.65	23.48	0	8.00	30.12	23.48	442	0.00
2	7.96	30.094	6.56	23.46	10	8.57	30.66	23.81	410	0.04
6	8.02	30.143	6.54	23.49	20	8.72	31.01	24.07	386	0.08
10	8.57	30.659	6.45	23.81	30	8.76	31.33	24.30	363	0.12
20	8.72	31.012	6.35	24.07	50	8.54	31.83	24.73	323	0.19
49	8.54	31.812	6.38	24.72	75	8.67	32.03	24.87	310	0.27
73	8.67	32.022	6.23	24.86	100	8.55	32.09	24.93	304	0.35
98	8.57	32.079	6.05	24.92	125	8.12	32.35	25.20	280	0.42
122	8.21	32.287	5.63	25.14	150	7.17	33.06	25.89	214	0.48
146	7.26	32.997	3.36	25.83	175	6.99	33.16	26.00	204	0.54
171	7.04	33.128	2.97	25.96	200	6.57	33.42	26.26	180	0.58
196	6.62	33.388	2.71	26.22	250	6.31	33.67	26.49	159	0.67
246	6.33	33.658	2.58	26.47	300	6.11	33.74	26.57	152	0.75
296	6.12	33.737	2.42	26.56						
346	6.02	33.786	2.35	26.61						
60	CNAV WHITETHROAT; November 23, 1958; 1045 GCT; 54°38'N, 132°49'W; sounding, 110 fm; wind, calm; weather, partly cloudy; sea, calm.									
0	8.00	29.952	6.66	23.34	0	8.00	29.95	23.34	455	0.00
2	7.66	29.907	6.56	23.35	10	8.27	30.67	23.87	405	0.04
6	8.22	30.323	6.47	23.60	20	8.65	30.92	24.00	392	0.08
10	8.27	30.672	6.58	23.87	30	8.92	31.18	24.17	376	0.12
20	8.65	30.919	6.39	24.00	50	9.11	31.75	24.58	337	0.19
50	9.11	31.753	6.17	24.58	75	8.81	31.91	24.75	322	0.28
75	8.81	31.906	6.05	24.75	100	8.66	32.06	24.89	309	0.36
100	8.66	32.055	5.92	24.89	125	8.28	32.37	25.19	280	0.43
125	8.28	32.370	4.98	25.19	150	6.96	33.18	26.01	202	0.49
150	6.96	33.178	3.02	26.01	175	6.42	33.52	26.35	170	0.54
175	6.42	33.519	2.60	26.35	200	6.22	33.63	26.47	160	0.58
200	6.22	33.631	2.51	26.47						
61	CNAV WHITETHROAT; November 23, 1958; 1459 GCT; 54°42'N, 131°56.5'W; sounding, 202 fm; wind, 180°, 3 kt; weather, partly cloudy; sea, missing.									
0	7.70	28.834	6.70	22.51	0	7.70	28.83	22.51	534	0.00
2	7.32	28.580	6.21	22.36	10	8.34	29.91	23.26	462	0.05
6	8.21	29.180	6.42	22.71	20	8.34	29.97	23.30	459	0.10
10	8.34	29.912	6.51	23.26	30	8.43	30.16	23.44	445	0.14
20	8.34	29.966	6.58	23.30	50	8.86	30.97	24.02	391	0.23
50	8.86	30.974	-	24.02	75	9.06	31.55	24.44	352	0.32
75	9.06	31.554	6.24	24.44	100	9.08	31.78	24.61	335	0.40
100	9.08	31.780	6.18	24.61	125	8.50	32.16	24.99	299	0.48
125	8.50	32.158	5.63	24.99	150	7.60	32.53	25.42	259	0.56
150	7.60	32.532	4.41	25.42	175	6.92	32.94	25.83	220	0.62
200	6.47	33.377	2.60	26.23	200	6.47	33.38	26.23	182	0.67
250	6.05	33.583	2.39	26.45	250	6.05	33.58	26.45	162	0.75
300	5.85	33.678	2.14	26.55	300	5.85	33.68	26.55	153	0.83
350	5.76	33.713	2.10	26.59						

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

62

CNAV WHITETHROAT; November 23, 1958; 1626 GCT; 54°43.5'N, 131°41.5'W; sounding, 235 fm; wind, 150°, 4 kt; weather, cloudy; sea, calm.

0	7.20	29.157	6.88	22.83	0	7.20	29.16	22.83	504	0.00
2	7.49	29.208	6.91	22.83	10	7.73	29.62	23.12	476	0.05
6	7.62	29.440	6.76	22.99	20	8.15	30.14	23.47	443	0.10
10	7.73	29.662	6.78	23.12	30	8.52	30.60	23.78	414	0.14
20	8.15	30.145	6.62	23.47	50	9.10	31.32	24.25	369	0.22
50	9.10	31.316	6.42	24.25	75	8.78	31.83	24.69	327	0.30
75	8.78	31.828	6.08	24.69	100	8.32	32.36	25.18	281	0.38
100	8.32	32.361	3.97	25.18	125	7.76	32.76	25.57	244	0.45
125	7.76	32.758	2.97	25.57	150	6.94	33.19	26.03	201	0.50
150	6.94	33.192	2.29	26.03	175	6.47	33.44	26.29	177	0.55
200	6.36	33.513	2.32	26.35	200	6.36	33.51	26.35	170	0.59
250	6.15	33.655	2.21	26.49	250	6.15	33.66	26.49	158	0.68
300	5.90	33.742	2.26	26.59	300	5.90	33.74	26.59	149	0.76
400	6.21	33.820	-	26.62	400	6.21	33.82	26.62	148	0.90

63

CNAV WHITETHROAT; November 23, 1958; 1833 GCT; 54°46'N, 131°18.5'W; sounding, 89 fm; wind, 180°, 5 kt; weather, partly cloudy; sea, calm.

0	8.30	31.775	6.54	24.72	0	8.30	31.78	24.72	323	0.00
2	8.54	31.772	6.48	24.69	10	8.62	31.80	24.69	326	0.03
6	8.50	31.771	6.24	24.69	20	8.72	31.83	24.71	325	0.06
10	8.62	31.797	6.48	24.69	30	8.77	31.85	24.72	324	0.10
20	8.72	31.832	6.42	24.71	50	8.75	31.86	24.72	324	0.16
50	8.75	31.860	6.41	24.72	75	8.69	31.94	24.79	318	0.24
75	8.69	31.936	6.29	24.79	100	8.57	32.00	24.86	312	0.32
99	8.58	31.993	6.31	24.85						
124	8.24	32.320	5.13	25.16						

64

CNAV WHITETHROAT; November 23, 1958; 2013 GCT; 54°48'N, 130°59.5'W; sounding, 57 fm; wind, 340°, 5 kt; weather, cloudy; sea, calm.[a)]

0	7.50	29.677	6.69	23.19	0	7.50	29.68	23.19	469	0.00
2	7.55	29.640	6.72	23.16	10	7.58	29.68	23.19	470	0.05
6	7.60	29.664	6.73	23.17	20	8.65	30 22	23.46	444	0.09
10	7.58	29.684	6.75	23.19	30	9.28	30.70	23.74	418	0.14
20	8.65	30.225	6.65	23.46	50	9.24	31.45	24.33	362	0.21
50	9.24	31.450	6.02	24.33	75	9.00	31.91	24.72	324	0.30
75	9.00	31.906	3.82	24.72						

65

CNAV WHITETHROAT; November 23, 1958; 2102 GCT; 54°45'N, 130°53'W; sounding, 95 fm; wind, 060°, 4 kt; weather, cloudy; sea, calm.

0	7.50	29.313	6.70	22.91	0	7.50	29.31	22.91	496	0.00
2	7.66	29.305	6.64	22.88	10	7.83	29.36	22.90	497	0.05
6	7.66	29.299	6.60	22.88	20	8.25	29.76	23.16	472	0.10
10	7.83	29.357	6.53	22.90	30	8.59	30.17	23.42	447	0.14
20	8.25	29.763	6.44	23.16	50	9.02	30.96	23.98	394	0.23
50	9.02	30.964	6.32	23.98	75	9.26	31.77	24.58	338	0.32
75	9.26	31.773	6.08	24.58	100	9.00	31.91	24.73	324	0.40
100	9.00	31.914	6.16	24.73	125	8.92	32.09	24.87	311	0.48
125	8.92	32.086	5.55	24.87	150	8.25	32.50	25.30	271	0.56
150	8.25	32.496	4.14	25.30						

a) The following silicate values were obtained for this station: 0 m, 34.9; 2, 36.0; 6, 36.5; 10, 35.5; 20, 34.5; 50, 32.5; 75, 34.1 µg at/L.

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OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
66	CNAV WHITETHROAT; November 23, 1958; 2240 GCT; 54°39'N, 130°47'W; sounding, 130 fm; wind, 030°, 5 kt; weather, cloudy; sea, slight.									
0	7.80	29.951	6.60	23.37	0	7.80	29.95	23.37	452	0.00
2	7.80	29.575	6.57	23.07	10	8.22	31.10	24.21	372	0.04
6	8.08	30.366	6.53	23.65	20	8.50	31.49	24.47	348	0.08
10	8.22	31.101	6.60	24.21	30	8.67	31.64	24.56	339	0.11
20	8.50	31.487	6.46	24.47	50	8.89	31.76	24.63	333	0.18
34	8.70	31.634	6.41	24.55	75	9.05	31.91	24.72	325	0.26
59	8.98	31.820	6.29	24.66	100	9.03	32.01	24.80	318	0.34
84	9.06	31.957	6.22	24.75	125	8.75	32.11	24.92	307	0.42
108	9.00	32.023	5.27	24.81	150	8.20	32.34	25.18	282	0.50
133	8.57	32.155	5.54	24.98	175	7.55	32.76	25.61	242	0.56
183	7.32	32.936	3.38	25.77	200	7.06	33.07	25.91	212	0.62
208	6.96	33.109	2.90	25.96						
67	CNAV WHITETHROAT; November 24, 1958; 0010 GCT; 54°38'N, 130°36'W; sounding, 225 fm; wind, 060°, 14 kt; weather, partly cloudy; sea, slight.[a]									
0	7.30	29.293	6.58	22.92	0	7.30	29.29	22.92	495	0.00
2	7.69	29.281	6.51	22.86	10	7.98	29.51	23.00	488	0.05
6	7.84	29.366	6.52	22.90	20	8.76	31.36	24.33	360	0.09
10	7.98	29.512	6.51	23.00	30	9.19	32.34	25.03	294	0.12
20	8.76	31.362	6.50	24.33	50	9.00	31.68	24.54	341	0.19
50	9.00	31.678	6.44	24.54	75	9.10	31.83	24.65	332	0.27
75	(9.10)b)	(31.828)b)	6.50	(24.65)	100	9.09	31.89	24.69	327	0.36
99	9.10	31.874	6.35	24.68	125	8.56	32.62	25.35	266	0.43
125	8.56	32.623	4.93	25.35	150	7.69	32.76	25.58	244	0.50
150	7.69	32.758	3.90	25.58	175	7.21	32.90	25.76	227	0.55
200	7.11	33.054	2.98	25.89	200	7.11	33.05	25.89	214	0.61
249	6.92	33.134	2.71	25.98	250	6.92	33.14	25.98	206	0.72
299	6.67	33.186	2.68	26.06	300	6.67	33.19	26.06	200	0.82
349	6.46	33.279	2.51	26.16	400	5.37	33.30	26.31	177	1.01
399	5.40	33.297	2.42	26.30						
400	(5.37)c)	(33.297)c)	-	(26.31)						
68	CNAV WHITETHROAT; November 24, 1958; 0252 GCT; 54°19.5'N, 130°36.5'W; sounding, 66 fm; wind, 360°, 4 kt; weather, partly cloudy; sea, calm.									
0	7.50	28.962	6.43	22.63	0	7.50	28.96	22.63	522	0.00
3	8.09	29.244	6.38	22.78	10	8.61	30.31	23.53	437	0.05
13	8.46	30.939	6.42	24.05	20	8.65	31.68	24.60	335	0.09
43	8.86	31.515	6.33	24.44	30	8.82	32.10	24.90	307	0.12
68	9.01	31.660	6.33	24.53	50	8.92	31.59	24.48	347	0.18
93	9.02	31.703	6.28	24.56	75	9.03	31.68	24.54	341	0.27
100	(9.00)c)	(31.697)c)	-	(24.56)	100	9.00	31.70	24.56	340	0.36
69	CNAV WHITETHROAT; November 24, 1958; 0433 GCT; 54°10'N, 130°32.5'W; sounding, 67 fm; wind, 060°, 7 kt; weather, partly cloudy; sea, calm.									
0	8.30	31.134	6.38	24.22	0	8.30	31.13	24.22	371	0.00
2	8.30	31.134	6.33	24.22	10	8.70	31.24	24.25	369	0.04
6	8.46	31.156	6.38	24.22	20	8.61	31.29	24.30	363	0.07
10	8.70	31.239	6.28	24.25	30	8.63	31.35	24.34	360	0.11
20	8.61	31.294	6.36	24.30	50	9.03	31.44	24.35	359	0.18
50	9.03	31.442	6.58	24.35	75	9.16	31.59	24.45	350	0.27
75	9.16	31.589	6.13	24.45	100	9.13	31.65	24.50	346	0.36
100	9.13	31.652	6.13	24.50						

a) The following silicate values were obtained for this station: 0 m, 36.6; 10, 37.6; 20, 32.1; 50, 30.7; 99, 30.7; 150, 55.1; 200, 61.6; 299, 65.1; 399, 67.1 µg at/L.

b) Value interpolated by three-point parabolic method.

c) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	σ_t g/L	δ cl/ton	ΔD dyn m

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CNAV WHITETHROAT; November 25, 1958; 2157 GCT; 54°18'N, 130°52'W; sounding, 90 fm; wind, 040°, 8 kt; weather, partly cloudy; sea, slight.

0	8.10	31.217	6.60	24.32	0	8.10	31.22	24.32	362	0.00
2	8.29	31.217	6.52	24.29	10	8.40	31.42	24.43	351	0.04
6	8.28	31.218	6.53	24.29	20	8.60	31.69	24.61	334	0.07
10	8.40	31.416	6.58	24.43	30	8.74	31.83	24.70	326	0.10
20	8.60	31.690	6.48	24.61	50	8.86	31.69	24.57	338	0.17
50	8.86	31.689	6.32	24.57	75	8.93	31.85	24.69	327	0.25
75	8.93	31.854	6.27	24.69	100	8.94	31.91	24.73	324	0.34
100	8.94	31.911	6.28	24.73	125	8.98	31.97	24.78	320	0.42
125	8.98	31.972	6.27	24.78	150	8.98	31.99	24.79	319	0.50
150	8.98	31.988	6.27	24.79						

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CNAV WHITETHROAT; November 25, 1958; 2255 GCT; 54°23.5'N, 130°54.5'W; sounding, 80 fm; wind, 030°, 12 kt; weather, partly cloudy; sea, slight.

0	8.20	31.367	6.65	24.42	0	8.20	31.37	24.42	352	0.00
2	8.30	31.338	6.60	24.38	10	8.37	31.34	24.38	356	0.04
6	8.31	31.339	6.53	24.38	20	8.54	31.48	24.46	349	0.07
10	8.37	31.343	6.49	24.38	30	8.67	31.58	24.51	343	0.11
20	8.54	31.479	6.47	24.46	50	8.80	31.66	24.56	339	0.17
50	8.80	31.661	6.45	24.56	75	8.89	31.74	24.61	335	0.26
74	8.89	31.740	6.31	24.61	100	8.93	31.78	24.64	333	0.34
99	8.93	31.782	6.31	24.64	125	8.94	31.88	24.71	326	0.43
124	8.94	31.879	6.23	24.71	150	8.98	31.92	24.73	324	0.51
139	8.96	31.909	6.29	24.73						
150	(8.98)a)	(31.918)a)	-	(24.73)						

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CNAV WHITETHROAT; November 26, 1958; 0450 GCT; 54°33'N, 132°28'W; sounding, 180 fm; wind, 070°, 10 kt; weather, partly cloudy; sea, moderate.[b]

0	7.50	29.080	6.46	22.73	0	7.50	29.08	22.73	514	0.00
2	7.74	29.055	6.26	22.68	10	7.79	29.15	22.74	512	0.05
5	7.76	29.063	6.13	22.68	20	8.15	29.69	23.11	477	0.10
9	7.78	29.120	5.59	22.72	30	8.72	30.53	23.69	422	0.15
27	8.63	30.358	5.98	23.57	50	8.93	31.46	24.38	356	0.22
49	8.93	31.429	5.74	24.36	75	8.46	31.82	24.74	323	0.31
72	8.49	31.762	5.74	24.69	100	8.35	32.34	25.16	283	0.39
94	8.40	32.267	5.08	25.09	125	8.00	32.48	25.32	268	0.46
117	8.12	32.411	4.70	25.25	150	7.58	32.74	25.58	244	0.52
162	7.35	32.895	3.49	25.74	175	7.05	33.09	25.93	210	0.58
207	6.16	33.686	2.21	26.52	200	6.37	33.54	26.38	168	0.62

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CNAV WHITETHROAT; November 26, 1958; 1003 GCT; 54°59'N, 133°21'W; sounding, 100 fm; wind, 040°, 2 kt; weather, clear; sea, slight.

0	8.10	30.700	6.62	23.91	0	8.10	30.70	23.91	400	0.00
2	8.04	30.714	6.59	23.93	10	8.20	30.75	23.94	398	0.04
6	8.08	30.714	6.58	23.93	20	8.26	30.79	23.96	396	0.08
10	8.20	30.749	6.50	23.94	30	8.34	30.92	24.05	388	0.12
20	8.26	30.792	6.45	23.96	50	8.58	31.41	24.39	355	0.19
50	8.58	31.405	6.49	24.39	75	8.74	31.67	24.58	338	0.28
75	8.74	31.669	6.11	24.58	100	8.75	31.94	24.79	319	0.36
100	8.75	31.940	5.45	24.79	125	8.42	32.48	25.26	274	0.44
124	8.44	32.460	4.60	25.24	150	7.87	32.88	25.65	237	0.50
149	7.89	32.870	3.67	25.64						
174	7.62	33.016	3.45	25.79						

a) Value extrapolated by three-point parabolic method.
b) The following silicate values were obtained for this station: 0 m, 35.0; 2, 35.6; 5, 35.5; 9, 36.9; 27, 36.8; 49, 34.9; 72, 35.6; 94, 43.4; 117, 46.3; 207, 63.9 μg at/L.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
74	CNAV WHITETHROAT; November 26, 1958; 1142 GCT; 54°58'N, 133°38'W; sounding, 70-55 fm; wind, calm; weather, partly cloudy; sea, missing.									
0	8.40	31.146	6.42	24.22	0	8.40	31.15	24.22	371	0.00
2	8.42	31.073	6.40	24.16	10	8.54	31.17	24.22	371	0.04
12	8.58	31.294	6.30	24.31	20	8.67	31.42	24.39	355	0.07
42	8.71	31.558	6.25	24.49	30	8.72	31.52	24.47	348	0.11
66	8.78	31.697	6.20	24.59	50	8.74	31.61	24.53	342	0.18
91	8.75	32.103	5.40	24.91	75	8.78	31.81	24.68	328	0.26
116	8.74	32.410	5.00	25.15	100	8.74	32.22	25.01	297	0.34
75	CNAV WHITETHROAT; November 26, 1958; 1323 GCT; 54°58.5'N, 134°01'W; sounding, 70 fm; wind, 130°, 3 kt; weather, partly cloudy; sea, slight.									
0	8.20	30.912	6.78	24.06	0	8.20	30.91	24.06	386	0.00
2	7.91	30.886	6.86	24.08	10	8.21	31.21	24.30	364	0.04
6	7.99	30.938	6.73	24.11	20	8.78	31.54	24.47	348	0.07
10	8.21	31.213	6.68	24.30	30	9.09	31.77	24.60	336	0.11
20	8.78	31.537	6.52	24.47	50	8.96	31.93	24.75	321	0.17
50	8.96	31.934	6.34	24.75	75	9.10	32.14	24.89	309	0.25
75	9.10	32.136	6.25	24.89	100	9.06	32.19	24.93	304	0.33
100	9.06	32.192	6.10	24.93						
76	CNAV WHITETHROAT; November 26, 1958; 1927 GCT; 55°02'N, 135°02'W; sounding, 1400 fm; wind, 120°, 15 kt; weather, partly cloudy; sea, slight.									
0	8.20	31.971	6.56	24.89	0	8.20	31.97	24.89	307	0.00
10	8.20	31.954	6.55	24.88	10	8.20	31.95	24.88	308	0.03
20	8.21	31.937	6.50	24.86	20	8.21	31.94	24.86	310	0.06
30	8.43	32.017	6.29	24.89	30	8.43	32.02	24.89	307	0.09
50	8.77	32.304	6.13	25.07	50	8.77	32.30	25.07	291	0.15
74	8.43	32.560	5.54	25.32	75	8.40	32.57	25.33	266	0.22
99	7.23	32.912	5.30	25.77	100	7.19	32.93	25.78	224	0.28
124	6.63	33.241	4.76	26.11	125	6.61	33.25	26.12	192	0.34
149	6.38	33.508	4.19	26.35	150	6.37	33.52	26.36	170	0.38
199	6.16	33.839	2.86	26.64	175	6.22	33.71	26.53	153	0.42
248	5.89	33.916	2.46	26.73	200	6.16	33.84	26.64	143	0.46
286	5.55	33.966	2.04	26.81	250	5.87	33.92	26.74	135	0.53
381	4.98	34.025	1.33	26.93	300	5.44	33.98	26.84	126	0.60
478	4.69	34.044	1.11	26.97	400	4.90	34.03	26.94	116	0.72
574	4.29	34.141	0.85	27.10	500	4.61	34.06	27.00	112	0.83
668	4.04	34.180	0.82	27.15	600	4.21	34.16	27.12	101	0.94
764	3.77	(34.226)a)	0.81	(27.22)	700	3.95	34.19	27.17	96	1.04
955	3.29	34.334	0.73	27.35	800	3.67	34.24	27.24	90	1.14
1148	2.95	34.405	0.76	27.44	1000	3.20	34.35	27.37	78	1.31
1440	2.51	34.483	0.72	27.54	1200	2.87	34.42	27.46	71	1.46
1500	(2.43)b)	(34.495)b)	-	(27.55)	1500	2.43	34.49	27.55	62	1.66

a) Value interpolated by three-point parabolic method.
b) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
CNAV WHITETHROAT; November 27, 1958; 0035 GCT; 55°02'N, 136°00'W; sounding, 1500 fm; wind, 100°, 15 kt; weather, partly cloudy; sea, moderate.										77
0	7.40	32.397	7.07	25.34	0	7.40	32.40	25.34	264	0.00
10	7.34	32.382	7.07	25.34	10	7.34	32.38	25.34	265	0.03
19	7.31	32.373	7.11	25.33	20	7.31	32.37	25.33	265	0.05
29	7.35	32.361	6.89	25.32	30	7.35	32.36	25.32	267	0.08
48	7.39	32.381	6.91	25.33	50	7.39	32.39	25.33	266	0.13
72	7.41	32.487	6.73	25.41	75	7.35	32.54	25.46	254	0.20
95	6.60	33.117	5.22	26.01	100	6.51	33.22	26.10	193	0.26
119	6.41	33.463	4.28	26.31	125	6.32	33.53	26.37	168	0.30
143	5.94	33.667	3.90	26.53	150	5.83	33.71	26.58	148	0.34
191	5.45	33.853	3.05	26.74	175	5.55	33.82	26.70	137	0.38
239	5.18	33.909	2.47	26.81	200	5.38	33.87	26.76	132	0.41
295	4.66	33.937	1.94	26.89	250	5.10	33.92	26.83	126	0.48
395	4.29	34.019	1.31	27.00	300	4.62	33.94	26.90	119	0.54
495	4.14	34.102	0.85	27.08	400	4.28	34.02	27.00	110	0.65
595	3.90	34.179	0.72	27.17	500	4.13	34.11	27.08	103	0.76
695	3.71	(34.241)a)	-	(27.23)	600	3.89	34.18	27.17	96	0.86
795	3.52	34.287	0.60	27.29	700	3.70	34.24	27.24	90	0.96
994	3.12	34.378	0.55	27.40	800	3.51	34.29	27.29	85	1.04
1192	2.79	34.434	0.38	27.47	1000	3.11	34.38	27.40	75	1.21
1490	2.40	34.506	0.38	27.57	1200	2.78	34.44	27.48	69	1.35
1500	(2.39)b)	(34.508)b)	-	(27.57)	1500	2.39	34.51	27.57	61	1.55
CNAV WHITETHROAT; November 27, 1958; 2043 GCT; 53°55'N, 135°23'W; sounding, 1500 fm; wind, 170°, 20 kt; weather, overcast; sea, rough.										78
0	8.40	32.433	6.68	25.22	0	8.40	32.43	25.22	275	0.00
10	8.07	32.380	6.68	25.23	10	8.07	32.38	25.23	275	0.03
20	8.06	32.392	6.68	25.24	20	8.06	32.39	25.24	274	0.06
30	8.09	32.374	6.69	25.22	30	8.09	32.37	25.22	276	0.08
50	8.10	32.427	6.70	25.26	50	8.10	32.43	25.26	272	0.14
75	8.03	32.537	6.67	25.36	75	8.03	32.54	25.36	264	0.20
99	6.98	32.889	5.74	25.78	100	6.95	32.90	25.80	222	0.27
124	6.48	33.236	5.02	26.12	125	6.47	33.25	26.13	190	0.32
149	6.28	33.547	4.54	26.39	150	6.27	33.56	26.40	165	0.36
199	5.78	33.860	3.31	26.70	175	6.04	33.76	26.59	148	0.40
248	5.28	33.923	2.50	26.81	200	5.77	33.86	26.71	137	0.44
293	4.97	33.939	2.06	26.86	250	5.26	33.92	26.81	127	0.50
390	4.49	34.056	1.23	27.01	300	4.93	33.94	26.87	122	0.57
487	4.18	34.109	0.87	27.08	400	4.45	34.06	27.02	109	0.68
585	3.90	34.174	0.86	27.16	500	4.14	34.12	27.09	102	0.79
682	3.66	34.240	0.49	27.24	600	3.86	34.18	27.17	95	0.89
780	3.48	34.274	0.50	27.28	700	3.62	34.25	27.25	89	0.98
975	3.21	34.349	0.50	27.37	800	3.45	34.28	27.29	85	1.07
1171	2.87	34.427	0.50	27.46	1000	3.17	34.36	27.38	78	1.24
1466	2.50	34.496	0.49	27.55	1200	2.83	34.44	27.47	69	1.39
1500	(2.47)b)	(34.500)b)	-	(27.56)	1500	2.47	34.50	27.56	62	1.59

a) Value interpolated by three-point parabolic method.
b) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
79	CNAV WHITETHROAT; November 28, 1958; 0010 GCT; 53°55'N, 134°09'W; sounding, 1500 fm; wind, 170°, 15 kt; weather, overcast; sea, rough.									
0	8.40	32.428	6.78	25.22	0	8.40	32.43	25.22	276	0.00
10	8.20	32.456	6.80	25.27	10	8.20	32.46	25.27	271	0.03
20	8.20	32.448	6.78	25.27	20	8.20	32.45	25.27	272	0.06
30	8.22	32.448	6.80	25.26	30	8.22	32.45	25.26	272	0.08
50	8.27	32.457	6.68	25.26	50	8.27	32.46	25.26	272	0.14
74	8.21	32.457	6.69	25.27	75	8.18	32.47	25.28	271	0.20
99	6.91	33.069	5.21	25.93	100	6.88	33.09	25.95	208	0.26
124	6.63	33.428	4.52	26.25	125	6.63	33.44	26.26	178	0.31
149	6.69	33.803	3.11	26.54	150	6.69	33.81	26.55	152	0.36
198	6.18	33.906	3.02	26.69	175	6.52	33.96	26.69	139	0.39
248	5.34	33.901	2.60	26.79	200	6.15	33.91	26.69	138	0.43
297	5.64	33.919	2.32	26.77	250	5.33	33.90	26.79	130	0.50
396	4.78	33.983	1.67	26.92	300	5.64	33.92	26.77	132	0.56
495	4.40	34.074	0.99	27.03	400	4.76	33.99	26.92	118	0.69
594	3.97	34.153	0.85	27.14	500	4.38	34.08	27.04	108	0.80
693	3.75	34.207	0.90	27.20	600	3.95	34.16	27.14	98	0.91
792	3.58	34.269	0.59	27.27	700	3.74	34.21	27.21	93	1.00
889	3.21	34.354	0.59	27.37	800	3.56	34.28	27.28	87	1.09
1187	2.91	34.415	0.60	27.45	1000	2.95	34.41	27.44	71	1.25
1486	2.48	34.495	0.81	27.55	1200	2.89	34.42	27.45	72	1.40
1500	(2.46)a)	(34.499)a)	-	(27.56)	1500	2.46	34.50	27.56	62	1.60
80	CNAV WHITETHROAT; November 28, 1958; 0643 GCT; 54°00'N, 133°16'W; sounding, 33 fm; wind, 130°, 15 kt; weather, intermittent slight drizzle; sea, rough.									
0	9.10	32.234	6.62	24.96	0	9.10	32.23	24.96	300	0.00
10	8.78	32.246	7.92	25.02	10	8.78	32.25	25.02	295	0.03
20	8.81	32.233	7.92	25.01	20	8.81	32.23	25.01	296	0.06
40	8.88	32.239	6.69	25.00	30	8.84	32.23	25.00	297	0.09
81	CNAV WHITETHROAT; November 28, 1958; 1302 GCT; 53°15'N, 133°02'W; sounding, 390 fm; wind, 340°, 3 kt; weather, intermittent slight rain; sea, calm.									
0	9.10	32.260	6.62	24.98	0	9.10	32.26	24.98	298	0.00
10	8.85	32.303	6.48	25.05	10	8.85	32.30	25.05	292	0.03
20	8.84	32.279	6.70	25.04	20	8.84	32.28	25.04	294	0.06
30	8.87	32.289	6.60	25.04	30	8.87	32.29	25.04	293	0.09
50	8.86	32.296	6.55	25.05	50	8.86	32.30	25.05	293	0.15
75	7.71	32.757	5.48	25.58	75	7.71	32.76	25.58	243	0.22
100	7.24	33.287	3.75	26.06	100	7.24	33.29	26.06	197	0.27
125	6.83	33.489	3.52	26.27	125	6.83	33.49	26.27	177	0.32
150	6.71	33.662	3.46	26.43	150	6.71	33.66	26.43	163	0.36
200	6.39	33.853	3.20	26.62	175	6.56	33.78	26.54	153	0.40
250	6.04	33.946	1.32	26.74	200	6.39	33.85	26.62	146	0.44
299	5.75	33.950	1.72	26.78	250	6.04	33.95	26.74	135	0.51
398	5.10	33.994	1.66	26.89	300	5.74	33.95	26.78	132	0.58
498	4.72	34.090	1.01	27.01	400	5.09	34.00	26.89	121	0.70
500	(4.72)a)	(34.092)a)	-	(27.01)	500	4.72	34.09	27.01	111	0.82

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m

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CNAV WHITETHROAT; November 28, 1958; 1510 GCT; 53°18'N, 132°52'W; sounding, 200 fm; wind, 270°, 8 kt; weather, moderate to heavy drizzle and snow; sea, slight.

0	9.40	32.226	6.95	24.91	0	9.40	32.23	24.91	305	0.00
10	8.76	32.276	6.70	25.05	10	8.76	32.28	25.05	292	0.03
20	8.72	32.284	6.62	25.06	20	8.72	32.28	25.06	291	0.06
30	8.68	32.296	6.67	25.07	30	8.68	32.30	25.07	290	0.09
50	8.66	32.315	6.65	25.09	50	8.66	32.31	25.09	289	0.15
75	8.70	32.389	5.65	25.14	75	8.70	32.39	25.14	284	0.22
100	7.79	32.980	4.68	25.74	100	7.79	32.98	25.74	228	0.28
125	7.34	33.201	4.02	25.98	125	7.34	33.20	25.98	206	0.34
150	6.86	33.459	4.15	26.25	150	6.86	33.46	26.25	180	0.39
200	6.61	33.740	3.12	26.50	175	6.62	33.64	26.42	164	0.43
249	6.30	33.864	2.84	26.64	200	6.61	33.74	26.50	157	0.47
299	5.82	33.927	2.40	26.75	250	6.29	33.87	26.64	144	0.55
300	(5.81)a)	(33.928)a)	-	(26.75)	300	5.81	33.93	26.75	134	0.62

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CNAV WHITETHROAT; November 28, 1958; 1657 GCT; 53°18'N, 132°49'W; sounding, 170 fm; wind, 350°, 12 kt; weather, intermittent slight drizzle; sea, slight.

0	8.90	32.186	6.45	24.95	0	8.90	32.19	24.95	301	0.00
10	8.57	32.241	6.18	25.05	10	8.57	32.24	25.05	292	0.03
20	8.67	32.315	6.52	25.09	20	8.67	32.31	25.09	288	0.06
30	8.72	32.327	6.32	25.09	30	8.72	32.33	25.09	288	0.09
50	8.73	32.354	6.25	25.11	50	8.73	32.35	25.11	287	0.15
75	8.56	(32.515)b)	5.32	(25.26)	75	8.56	32.52	25.26	273	0.22
99	8.19	32.804	5.42	25.55	100	8.17	32.82	25.56	245	0.28
124	7.45	33.080	4.35	25.87	125	7.43	33.09	25.88	215	0.34
149	7.20	33.295	4.07	26.07	150	7.19	33.30	26.08	196	0.39
199	6.76	33.646	3.36	26.41	175	6.96	33.49	26.26	180	0.44
249	6.24	33.860	2.72	26.64	200	6.75	33.65	26.41	165	0.48
250	(6.23)a)	(33.863)a)	-	(26.65)	250	6.23	33.86	26.65	143	0.56

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CNAV WHITETHROAT; December 2, 1958; 1013 GCT; 51°53'N, 131°11'W; sounding, 400 fm; wind, 210°, 20 kt; weather, partly cloudy; sea, moderate.

0	9.00	32.228	6.99	24.97	0	9.00	32.23	24.97	299	0.00
10	8.90	32.200	6.50	24.97	10	8.90	32.20	24.97	300	0.03
20	8.82	32.354	6.70	25.10	20	8.82	32.35	25.10	288	0.06
30	8.72	32.402	6.32	25.15	30	8.72	32.40	25.15	283	0.09
49	8.56	32.532	5.38	25.28	50	8.55	32.54	25.28	270	0.14
74	8.39	32.702	5.24	25.44	75	8.38	32.71	25.44	256	0.21
123	8.02	32.948	4.33	25.68	100	8.20	32.85	25.58	243	0.27
148	7.40	33.029	4.18	25.83	125	7.98	32.96	25.69	233	0.33
190	7.14	33.278	3.52	26.07	150	7.37	33.04	25.85	218	0.39
239	6.69	33.393	3.55	26.22	175	7.12	33.17	25.99	205	0.44
278	6.36	33.660	2.74	26.47	200	7.06	33.32	26.11	194	0.49
373	5.92	33.794	2.76	26.63	250	6.59	33.45	26.28	179	0.59
467	5.60	33.884	2.74	26.74	300	6.21	33.76	26.57	152	0.67
562	4.86	33.965	-	26.89	400	5.82	33.82	26.67	143	0.82
658	4.32	34.166	0.84	27.11	500	5.39	33.91	26.79	132	0.96
700	(4.15)a)	(34.292)a)	-	(27.23)	600	4.62	34.03	26.97	115	1.08
					700	4.15	34.29	27.23	91	1.19

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CNAV WHITETHROAT; December 2, 1958; 1140 GCT; 51°57'N, 131°03'W; sounding, 110 fm; wind, 210°, 20 kt; weather, cloudy; sea, moderate.

0	9.10	32.237	7.05	24.96	0	9.10	32.24	24.96	300	0.00
9	8.87	32.218	6.08	24.98	10	8.86	32.22	24.99	298	0.03
19	8.88	32.228	6.66	24.99	20	8.88	32.23	24.99	298	0.06
46	8.84	32.308	5.92	25.06	30	8.88	32.25	25.01	296	0.09
69	8.76	32.381	5.89	25.13	50	8.83	32.32	25.07	291	0.15
93	8.42	32.722	4.92	25.45	75	8.70	32.44	25.18	280	0.22
116	8.22	32.840	4.56	25.57	100	8.35	32.78	25.50	250	0.29
139	7.86	33.031	4.30	25.77	125	8.10	32.91	25.64	238	0.35
185	7.52	33.210	3.80	25.96	150	7.73	33.10	25.84	219	0.41
					175	7.55	33.19	25.94	210	0.46

a) Value extrapolated by three-point parabolic method.
b) Value interpolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
86	CNAV WHITETHROAT; December 2, 1958; 1508 GCT; 51°48'N, 131°26'W; sounding, 1000 fm; wind, 240°, 5 kt; weather, partly cloudy; sea, moderate.									
0	8.90	32.318	6.59	25.06	0	8.90	32.32	25.06	291	0.00
10	8.77	32.324	6.66	25.08	10	8.77	32.32	25.08	289	0.03
20	8.78	32.361	6.16	25.11	20	8.78	32.36	25.11	286	0.06
30	8.74	32.376	6.11	25.13	30	8.74	32.38	25.13	285	0.09
50	8.68	32.451	5.87	25.20	50	8.68	32.45	25.20	279	0.14
75	8.62	32.489	5.61	25.23	75	8.62	32.49	25.23	276	0.21
100	8.22	32.761	4.83	25.51	100	8.22	32.76	25.51	250	0.28
125	7.84	33.013	4.23	25.76	125	7.84	33.01	25.76	226	0.34
150	7.54	33.159	3.81	25.92	150	7.54	33.16	25.92	212	0.39
199	6.18	33.608	4.72	26.45	175	6.97	33.36	26.15	189	0.44
249	5.91	33.830	3.92	26.66	200	6.16	33.61	26.46	160	0.49
298	5.53	33.885	3.05	26.75	250	5.90	33 83	26.66	142	0.56
396	5.13	34.014	1.56	26.90	300	5.52	33.89	26.76	133	0.64
490	4.83	34.068	0.99	26.98	400	5.12	34.02	26.91	120	0.76
585	4.43	34.150	0.91	27.09	500	4.79	34.08	26.99	113	0.88
682	4.14	34.259	0.55	27.20	600	4.38	34.17	27.10	102	0.99
779	3.90	34.276	0.77	27.24	700	4.09	34.27	27.22	92	1.09
978	3.38	34.313	0.41	27.32	800	3.85	34.28	27.25	90	1.18
1175	2.98	34.504	0.64	27.51	1000	3.33	34.33	27.34	82	1.35
1474	2.42	34.504	0.69	27.56	1200	2.93	34.52	27.53	64	1.50
1500	(2.37)a)	(34.487)a)	-	(27.55)	1500	2.37	34.49	27.55	62	1.69
87	CNAV WHITETHROAT; December 3, 1958; 0034 GCT; 51°16'N, 133°02'W; sounding, 1600 fm; wind, 320°, 15 kt; weather, cloudy; sea, slight.[b]									
0	9.00	32.322	6.62	25.05	0	9.00	32.32	25.05	292	0.00
9	8.82	32.407	6.59	25.14	10	8.81	32.41	25.14	283	0.03
18	8.80	32.399	6.58	25.14	20	8.80	32.40	25.14	284	0.06
27	8.81	32.401	6.60	25.14	30	8.81	32.40	25.14	284	0.09
45	8.82	32.415	6.53	25.15	50	8.79	32.44	25.17	281	0.14
67	8.56	32.601	5.73	25.33	75	8.28	32.76	25.50	250	0.21
90	7.50	33.199	3.73	25.95	100	7.25	33.35	26.11	193	0.26
112	7.12	33.452	3.42	26.21	125	6.97	33.67	26.39	166	0.31
135	6.90	33.863	3.37	26.56	150	6.77	33.99	26.68	139	0.35
180	6.54	33.927	2.72	26.66	175	6.58	33.97	26.69	139	0.38
225	6.13	33.966	2.30	26.74	200	6.36	33.95	26.70	138	0.42
269	5.88	33.983	2.05	26.79	250	5.97	33.98	26.77	132	0.49
358	5.56	34.017	1.88	26.85	300	5.74	33.99	26.81	128	0.55
446	5.20	34.080	-	26.95	400	5.39	34.04	26.89	122	0.68
536	4.86	34.148	0.99	27.04	500	4.99	34.12	27.00	112	0.80
628	4.46	34.216	0.94	27.14	600	4.59	34.20	27.11	103	0.90
719	4.18	34.339	0.54	27.26	700	4.23	34.31	27.23	91	1.00
910	3.53	34.407	0.39	27.38	800	3.91	34.40	27.34	82	1.09
1102	3.05	34.444	0.52	27.46	1000	3.28	34.43	27.42	74	1.25
1400	2.59	34.462	0.59	27.51	1200	2.86	34.46	27.48	68	1.39
1500	(2.51)a)	(34.457)a)	-	(27.52)	1500	2.51	34.46	27.52	66	1.60

a) Value extrapolated by three-point parabolic method.

b) The following silicate values were obtained for this station: 0 m, 10.0; 9, 9.1; 18, 10.0; 27, 10.0; 45, 7.8; 67, 19.3; 90, 19.6; 135, 46.1; 180, 56.3; 269, 62.3; 536, 55.2; 910, 122.6; 1102, 141.3; 1400, 67.6 µg at/L.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
CNAV WHITETHROAT; December 3, 1958; 0846 GCT; 50°36'N, 134°20'W; sounding, 1800 fm; wind, 300°, 10 kt; weather, partly cloudy; sea, slight.										88
0	9.40	32.338	6.90	25.00	0	9.40	32.34	25.00	297	0.00
10	9.04	32.326	6.76	25.04	10	9.04	32.33	25.04	293	0.03
20	9.02	32.345	6.83	25.06	20	9.02	32.34	25.06	291	0.06
30	9.00	32.324	6.64	25.05	30	9.00	32.32	25.05	293	0.09
50	9.28	32.348	6.24	25.02	50	9.28	32.35	25.02	295	0.15
75	8.42	32.504	6.46	25.28	75	8.42	32.50	25.28	272	0.22
100	7.68	32.864	5.51	25.67	100	7.68	32.86	25.67	235	0.28
125	7.15	33.340	4.43	26.11	125	7.15	33.34	26.11	193	0.34
150	7.06	33.662	3.37	26.38	150	7.06	33.66	26.38	168	0.38
200	6.54	33.862	2.91	26.61	175	6.86	33.84	26.54	152	0.42
250	5.91	33.958	2.37	26.76	200	6.54	33.86	26.61	147	0.46
290	5.62	33.977	2.06	26.81	250	5.91	33.96	26.76	132	0.53
390	4.92	33.999	1.89	26.91	300	5.55	33.98	26.83	127	0.60
489	4.48	34.090	1.04	27.03	400	4.86	34.01	26.92	118	0.72
589	4.20	34.157	0.71	27.12	500	4.44	34.10	27.05	107	0.83
688	4.01	34.235	0.58	27.20	600	4.17	34.17	27.13	100	0.94
788	3.70	34.283	0.59	27.27	700	3.98	34.24	27.21	93	1.04
987	3.28	34.374	0.50	27.38	800	3.67	34.29	27.28	87	1.13
1184	2.86	34.435	0.50	27.47	1000	3.25	34.38	27.39	77	1.29
1482	2.42	34.498	0.51	27.56	1200	2.83	34.44	27.47	69	1.44
1500	(2.40)a)	(34.501)a)	-	(27.56)	1500	2.40	34.50	27.56	61	1.64
CNAV WHITETHROAT; December 3, 1958; 2007 GCT; 50°24'N, 131°50'W; sounding, 1800 fm; wind, 300°, 5 kt; weather, partly cloudy; sea, slight.										89
0	10.10	32.440	6.48	24.96	0	10.10	32.44	24.96	300	0.00
10	10.08	32.417	6.48	24.95	10	10.08	32.42	24.95	302	0.03
20	10.06	32.424	6.52	24.95	20	10.06	32.42	24.95	301	0.06
30	10.05	32.417	6.44	24.95	30	10.05	32.42	24.95	302	0.09
49	10.07	32.426	6.64	24.95	50	10.07	32.43	24.95	302	0.15
74	10.11	32.428	6.70	24.95	75	10.06	32.44	24.96	302	0.23
98	7.75	32.789	5.77	25.60	100	7.62	32.81	25.64	238	0.30
123	6.92	33.048	5.71	25.92	125	6.86	33.07	25.94	209	0.35
148	6.29	33.425	5.79	26.29	150	6.25	33.45	26.32	173	0.40
197	6.07	33.753	4.80	26.58	175	6.00	33.67	26.53	154	0.44
246	5.78	33.860	4.09	26.70	200	6.05	33.77	26.59	148	0.48
296	5.22	33.910	2.90	26.81	250	5.75	33.87	26.71	137	0.55
396	4.55	33.994	1.66	26.95	300	5.18	33.91	26.82	128	0.62
495	4.29	34.086	1.26	27.05	400	4.53	34.00	26.96	115	0.74
594	4.12	34.166	0.71	27.13	500	4.28	34.09	27.06	106	0.85
690	3.79	34.232	0.71	27.22	600	4.10	34.17	27.14	99	0.96
789	3.57	34.300	0.66	27.29	700	3.76	34.24	27.23	91	1.05
990	3.16	34.381	0.63	27.40	800	3.55	34.31	27.30	84	1.14
1191	2.78	-	0.66		1000	3.14				
1492	2.41	-	0.67		1200	2.77				
1500	(2.40)a)	-	-		1500	2.40				

a) Value extrapolated by three-point parabolic method.

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OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
90	CNAV WHITETHROAT; December 4, 1958; 0548 GCT; 50°23'N, 130°00'W; sounding, 900 fm; wind, 360°, 15 kt; weather, partly cloudy; sea, slight.[a]									
0	10.00	32.336	6.86	24.90	0	10.00	32.34	24.90	307	0.00
7	9.41	32.305	6.66	24.97	10	9.37	32.30	24.97	300	0.03
13	9.47	32.305	6.80	24.96	20	9.44	32.31	24.96	300	0.06
20	9.44	32.305	6.08	24.96	30	9.44	32.31	24.97	300	0.09
33	9.45	32.320	5.97	24.97	50	8.87	32.52	25.22	277	0.15
50	8.87	32.518	5.27	25.22	75	7.16	33.30	26.08	195	0.21
67	7.37	33.134	4.75	25.92	100	7.35	33.58	26.28	177	0.26
84	7.30	33.402	4.34	26.14	125	7.32	33.77	26.43	163	0.30
100	7.35	33.583	3.88	26.28	150	7.17	33.87	26.53	154	0.34
134	7.27	33.806	3.18	26.46	175	6.96	33.92	26.60	148	0.38
168	7.01	33.909	2.90	26.58	200	6.81	33.94	26.63	144	0.41
216	6.73	33.935	2.68	26.64	250	6.43	33.96	26.70	139	0.48
287	6.02	33.986	2.15	26.77	300	5.91	33.99	26.79	130	0.55
359	5.46	34.005	1.78	26.86	400	5.28	34.03	26.90	121	0.68
428	5.21	34.063	1.62	26.93	500	4.87	34.09	26.99	113	0.80
498	4.88	34.093	0.97	26.99	600	4.56	34.16	27.08	105	0.91
569	4.67	34.144	0.79	27.06	700	4.15	34.22	27.17	97	1.01
710	4.10	34.222	0.76	27.18	800	3.85	34.29	27.26	89	1.10
850	3.74	34.326	0.73	27.30	1000	3.34	34.40	27.39	77	1.27
1060	3.17	34.414	0.71	27.42						
91	CNAV WHITETHROAT; December 4, 1958; 1442 GCT; 49°43'N, 128°22'W; sounding, 1200 fm; wind, 360°, 15 kt; weather, partly cloudy; sea, slight.									
0	9.90	32.431	6.48	24.99	0	9.90	32.43	24.99	298	0.00
10	10.10	32.320	6.52	24.87	10	10.10	32.32	24.87	310	0.03
20	10.17	32.320	6.38	24.86	20	10.17	32.32	24.86	311	0.06
30	10.14	32.322	6.50	24.86	30	10.14	32.32	24.86	310	0.09
50	10.13	32.322	6.40	24.86	50	10.13	32.32	24.86	311	0.16
75	7.67	32.931	5.12	25.72	75	7.67	32.93	25.72	229	0.22
100	7.07	33.340	4.69	26.12	100	7.07	33.34	26.12	191	0.28
125	7.47	33.668	3.68	26.33	125	7.47	33.67	26.33	172	0.32
150	7.40	33.779	2.42	26.42	150	7.40	33.78	26.42	164	0.36
200	7.05	33.919	2.25	26.58	175	7.26	33.86	26.51	156	0.40
250	6.58	33.974	2.08	26.69	200	7.05	33.92	26.58	149	0.44
300	5.96	33.994	2.04	26.78	250	6.58	33.97	26.69	140	0.52
400	5.37	34.039	1.32	26.89	300	5.96	33.99	26.78	131	0.58
500	4.95	34.122	0.76	27.01	400	5.37	34.04	26.89	122	0.71
600	4.30	34.170	0.91	27.12	500	4.95	34.12	27.01	111	0.83
700	4.02	34.390	0.36	27.32	600	4.30	34.17	27.12	101	0.94
800	3.81	34.250	0.42	27.23	700	4.02	34.39	27.32	83	1.03
1000	3.41	34.307	0.36	27.32	800	3.81	34.25	27.23	91	1.12
1200	2.97	34.457	0.41	27.48	1000	3.41	34.31	27.32	84	1.30
1500	2.46	34.525	0.97	27.58	1200	2.97	34.46	27.48	70	1.45
					1500	2.46	34.53	27.58	60	1.65

a) The following silicate values were obtained for this station: 0 m, 10.7; 7, 10.3; 13, 10.9; 20, 11.1; 33, 11.8; 67, 31.0; 100, 38.2; 134, 38.0; 216, 43.5; 287, 52.0; 359, 60.0; 428, 69.2; 710, 92.0; 850, 103.0; 1060, 124.0 µg at/L.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
CNAV WHITETHROAT; December 4, 1958; 1719 GCT; 49°53'N, 128°03'W; sounding, 700 fm; wind, 330°, 15 kt; weather, partly cloudy; sea, calm.										92
0	10.80	31.783	6.68	24.33	0	10.80	31.78	24.33	360	0.00
10	9.10	31.641	6.61	24.50	10	9.10	31.64	24.50	344	0.04
20	9.64	32.138	6.72	24.80	20	9.64	32.14	24.80	316	0.07
30	9.70	32.208	6.90	24.85	30	9.70	32.21	24.85	312	0.10
50	9.72	32.212	6.66	24.85	50	9.72	32.21	24.85	312	0.16
74	9.22	32.557	-	25.19	75	9.18	32.57	25.21	278	0.24
99	7.81	33.082	5.06	25.82	100	7.77	33.10	25.84	219	0.30
124	7.15	33.267	5.06	26.06	125	7.14	33.28	26.07	197	0.35
149	7.04	33.515	5.06	26.27	150	7.04	33.52	26.27	178	0.40
198	6.87	33.864	4.15	26.56	175	6.94	33.72	26.44	162	0.44
248	6.46	33.978	3.34	26.71	200	6.86	33.87	26.57	150	0.48
300	5.93	33.951	3.00	26.75	250	6.44	33.98	26.71	138	0.55
400	5.43	34.021	1.78	26.87	300	5.93	33.95	26.75	134	0.62
500	5.00	34.099	1.06	26.98	400	5.43	34.02	26.87	124	0.75
600	8.51	(34.180)a)	-	(26.57)	500	5.00	34.10	26.98	114	0.87
700	4.14	34.263	0.54	27.21	600	8.51	34.18	26.57	158	1.01
800	3.82	34.332	0.50	27.30	700	4.14	34.26	27.21	93	1.14
1000	3.51	34.384	0.48	27.37	800	3.82	34.33	27.30	86	1.23
					1000	3.51	34.38	27.37	80	1.39
CNAV WHITETHROAT; December 4, 1958; 1909 GCT; 49°57'N, 127°54'W; sounding, 270 fm; wind, 360°, 10 kt; weather, partly cloudy; sea, missing.										93
0	9.40	31.198	6.55	24.11	0	9.40	31.20	24.11	382	0.00
10	9.25	31.374	6.34	24.27	10	9.25	31.37	24.27	367	0.04
20	9.57	32.131	6.20	24.81	20	9.57	32.13	24.81	315	0.07
30	9.65	32.199	6.12	24.85	30	9.65	32.20	24.85	312	0.10
50	9.64	32.347	5.62	24.96	50	9.64	32.35	24.96	301	0.17
75	8.86	32.795	4.48	25.44	75	8.86	32.80	25.44	256	0.24
100	8.33	33.047	4.06	25.71	100	8.33	33.05	25.71	230	0.30
124	7.69	33.428	3.49	26.11	125	7.67	33.44	26.12	192	0.35
149	7.50	33.575	3.24	26.25	150	7.49	33.58	26.25	180	0.40
199	7.48	33.662	2.78	26.32	175	7.43	33.65	26.32	174	0.44
249	7.16	33.842	2.50	26.51	200	7.48	33.66	26.32	174	0.48
298	6.34	33.957	2.38	26.71	250	7.15	33.84	26.51	157	0.57
398	5.38	34.027	1.54	26.88	300	6.31	33.96	26.71	138	0.64
400	(5.37)b)	(34.026)b)	-	(26.88)	400	5.37	34.03	26.88	122	0.77
CNAV WHITETHROAT; December 5, 1958; 0903 GCT; 49°02.5'N, 126°49'W; sounding, 150 fm; wind, 300°, 7 kt; weather, partly cloudy; sea, calm.										94
0	9.40	32.106	6.55	24.81	0	9.40	32.11	24.81	314	0.00
10	9.60	32.102	6.50	24.78	10	9.60	32.10	24.78	318	0.03
20	9.74	32.118	6.42	24.77	20	9.74	32.12	24.77	319	0.06
30	9.82	32.149	6.17	24.78	30	9.82	32.15	24.78	318	0.10
50	8.84	32.625	5.69	25.31	50	8.84	32.63	25.31	268	0.16
75	7.68	33.005	5.72	25.78	75	7.68	33.00	25.78	224	0.22
100	7.74	33.381	4.24	26.06	100	7.74	33.38	26.06	197	0.27
125	7.73	33.681	2.78	26.30	125	7.73	33.68	26.30	175	0.32
150	7.60	33.747	2.30	26.37	150	7.60	33.75	26.37	169	0.36
200	7.46	33.840	2.45	26.46	175	7.51	33.80	26.42	164	0.40
250	6.78	33.966	2.30	26.66	200	7.46	33.84	26.46	161	0.44
					250	6.78	33.97	26.66	143	0.52

a) Value interpolated by three-point parabolic method.
b) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	g/L	cl/ton	dyn m
95	CNAV WHITETHROAT; December 5, 1958; 1361 GCT; 48°27'N, 126°11'W; sounding, 140 fm; wind, 040°, 15 kt; weather, intermittent slight drizzle; sea, slight.									
0	9.10	32.211	6.52	24.94	0	9.10	32.21	24.94	302	0.00
10	9.58	32.203	6.56	24.86	10	9.58	32.20	24.86	310	0.03
20	9.62	32.203	6.50	24.85	20	9.62	32.20	24.85	311	0.06
29	9.61	32.209	6.45	24.86	30	9.58	32.22	24.88	309	0.09
49	8.19	32.941	5.14	25.65	50	8.15	32.97	25.68	233	0.15
73	7.88	33.288	4.45	25.97	75	7.87	33.32	25.99	204	0.20
98	7.94	33.627	3.40	26.23	100	7.94	33.65	26.24	180	0.25
122	7.82	33.811	2.67	26.39	125	7.81	33.83	26.40	165	0.29
147	7.70	33.883	2.30	26.46	150	7.68	33.89	26.47	160	0.34
196	7.41	33.930	2.27	26.54	175	7.54	33.93	26.52	155	0.38
220	7.14	33.943	2.13	26.59	200	7.37	33.93	26.55	153	0.41
96	CNAV WHITETHROAT; December 5, 1958; 1524 GCT; 48°34.5'N, 125°57'W; sounding, 60 fm; wind, 040°, 10 kt; weather, cloudy; sea, slight.									
0	9.70	32.126	6.41	24.78	0	9.70	32.13	24.78	317	0.00
10	9.50	32.065	6.43	24.77	10	9.50	32.06	24.77	319	0.03
19	9.56	32.075	6.42	24.76	20	9.56	32.08	24.76	320	0.06
29	9.56	32.066	6.45	24.76	30	9.56	32.08	24.77	319	0.10
49	9.82	32.831	5.03	25.31	50	9.80	32.86	25.34	265	0.16
73	8.37	33.354	3.47	25.95	75	8.30	33.38	25.98	205	0.21
97	8.12	33.424	3.23	26.04	100	8.17	33.40	26.01	202	0.26
100	(8.17)a)	(33.401)a)	-	(26.01)						
97	CNAV WHITETHROAT; December 5, 1958; 1758 GCT; 48°51.5'N, 125°39'W; sounding, 25 fm; wind, 100°, 20 kt; weather, overcast; sea, slight.									
0	9.10	30.363	6.63	23.50	0	9.10	30.36	23.50	439	0.00
10	9.42	30.349	6.64	23.44	10	9.42	30.35	23.44	445	0.04
20	9.94	31.138	6.55	23.97	20	9.94	31.14	23.97	395	0.09
30	10.01	31.928	5.93	24.58	30	10.01	31.93	24.58	338	0.12
98	CNAV WHITETHROAT; December 5, 1958; 2117 GCT; 48°37'N, 125°01'W; sounding, 30 fm; wind, 090°, 15 kt; weather, cloudy; sea, slight.									
0	8.90	30.281	6.47	23.47	0	8.90	30.28	23.47	443	0.00
10	9.67	30.242	6.61	23.32	10	9.67	30.24	23.32	457	0.04
20	10.03	30.569	6.50	23.52	20	10.03	30.57	23.52	438	0.09
30	10.83	31.597	6.38	24.18	30	10.83	31.60	24.18	375	0.13
50	10.86	31.872	6.32	24.39	50	10.86	31.87	24.39	356	0.20
99	CNAV WHITETHROAT; December 5, 1958; 2253 GCT; 48°28'N, 124°49'W; sounding, 150 fm; wind, 090°, 18 kt; weather, overcast; sea, slight.									
0	9.10	30.072	6.70	23.28	0	9.10	30.07	23.28	461	0.00
10	9.67	30.145	6.83	23.24	10	9.67	30.14	23.24	464	0.05
20	9.86	30.275	6.35	23.32	20	9.86	30.28	23.32	458	0.09
30	10.34	30.799	6.41	23.64	30	10.34	30.80	23.64	426	0.14
50	9.97	31.207	5.40	24.02	50	9.97	31.21	24.02	391	0.22
75	9.52	31.877	4.95	24.62	75	9.52	31.88	24.62	334	0.31
99	8.47	32.908	3.78	25.58	100	8.44	32.94	25.61	240	0.38
124	8.21	33.236	3.16	25.88	125	8.21	33.24	25.89	214	0.44
149	8.24	33.345	3.12	25.96	150	8.24	33.35	25.97	207	0.49
199	7.88	33.614	2.50	26.23	175	8.12	33.48	26.08	197	0.54
249	7.48	33.809	2.20	26.44	200	7.87	33.62	26.23	183	0.59
250	(7.47)a)	(33.812)a)	-	(26.44)	250	7.47	33.81	26.44	164	0.68

a) Value extrapolated by three-point parabolic method.

OBSERVED				COMPUTED	INTERPOLATED			COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	Z m	T °C	S ‰	σ_t g/L	δ cl/ton	ΔD dyn m

CNAV WHITETHROAT; December 6, 1958; 0307 GCT; 48°18'N, 124°02.5'W; sounding, 100 fm; wind, 090°, 12 kt; weather, intermittent slight rain; sea, slight.

0	9.00	30.376	6.40	23.53	0	9.00	30.38	23.53	437	0.00
10	9.46	30.355	6.39	23.44	10	9.46	30.36	23.44	445	0.04
20	9.53	30.487	6.20	23.53	20	9.53	30.49	23.53	437	0.09
30	9.52	30.574	6.18	23.60	30	9.52	30.57	23.60	430	0.13
50	8.79	30.993	5.84	24.04	50	8.79	30.99	24.04	389	0.21
75	8.58	31.511	4.91	24.48	75	8.58	31.51	24.48	348	0.31
100	8.33	32.212	4.21	25.06	100	8.33	32.21	25.06	292	0.39
125	8.30	32.462	3.86	25.26	125	8.30	32.46	25.26	274	0.46
150	7.88	33.522	2.67	26.15	150	7.88	33.52	26.15	190	0.52
175	7.86	33.593	2.56	26.21	175	7.86	33.59	26.21	184	0.56

OBSERVED			COMPUTED	INTERPOLATED			COMPUTED		
Z	T	S	σ_t	Z	T	S	σ_t	δ	ΔD
m	°C	‰	g/L	m	°C	‰	g/L	cl/ton	dyn m

USS BURTON ISLAND; September 12, 1958; 0000 GCT; 65°44'N, 168°44'W; sounding, 42 m; wind, 340°, force 1; weather, fog; sea, calm.[a] 3

0	5.87	31.60	24.91	0	5.87	31.60	24.91	305	0.00
5	5.72	31.62	24.94	10	5.16	31.69	25.06	291	0.03
10	5.16	31.69	25.06	20	4.94	31.73	25.12	286	0.06
15	5.00	31.72	25.10	30	4.79	31.75	25.15	283	0.09
20	4.94	31.73	25.12	50	4.79	31.76	25.16	282	0.14
30	4.79	31.75	25.15						
50	4.79	31.76	25.16						

USS BURTON ISLAND; September 12, 1958; 0300 GCT; 65°43'N, 168°34'W; sounding, 42 m; wind, 010°, force 1; weather, intermittent slight drizzle; sea, calm. 4

0	6.31	31.64	24.89	0	6.31	31.64	24.89	307	0.00
5	5.70	31.67	24.98	10	5.44	31.68	25.02	295	0.03
10	5.44	31.68	25.02	20	5.43	31.71	25.05	292	0.06
15	5.44	31.68	25.02	30	5.43	31.68	25.02	295	0.09
20	5.43	31.71	25.05	50	5.34	31.68	25.03	294	0.15
30	5.43	31.68	25.02						
50	5.34	31.68	25.03						

USS BURTON ISLAND; September 12, 1958; 0500 GCT; 65°42'N, 168°26'W; sounding, 46 m; wind, 010°, force 1; weather, intermittent slight drizzle; sea, calm. 5

0	8.93	30.45	23.60	0	8.93	30.45	23.60	430	0.00
5	8.17	30.95	24.10	10	7.14	31.47	24.65	330	0.04
10	7.14	31.47	24.65	20	6.75	31.53	24.75	321	0.07
15	6.94	31.53	24.72	30	6.51	31.56	24.80	316	0.10
20	6.75	31.53	24.75	50	5.95	31.56	24.87	310	0.16
30	6.51	31.56	24.80						
50	5.95	31.56	24.87						

USS BURTON ISLAND; September 12, 1958; 0900 GCT; 65°41'N, 168°17'W; sounding, 40 m; wind, 190°, force 4; weather, fog; sea, calm. 6

0	9.61	29.18	22.50	0	9.61	29.18	22.50	535	0.00
5	9.64	29.26	22.56	10	9.65	29.76	22.95	492	0.05
10	9.65	29.76	22.95	20	8.86	30.66	23.77	414	0.10
15	9.55	30.08	23.21	30	8.57	30.96	24.05	388	0.14
20	8.86	30.66	23.77						
30	8.57	30.96	24.05						
45	8.51	31.00	24.09						

USS BURTON ISLAND; September 12, 1958; 1400 GCT; 65°00'N, 168°30'W; sounding, 38 m; wind, 060°, force 3; weather, fog; sea, calm. 2

0	6.23	31.28	24.61	0	6.23	31.28	24.61	333	0.00
5	6.16	31.31	24.65	10	4.75	31.57	25.01	296	0.03
10	4.75	31.57	25.01	20	3.70	31.87	25.35	263	0.06
15	3.74	31.87	25.35	30	3.50	31.91	25.40	259	0.09
20	3.70	31.87	25.35						
30	3.50	31.91	25.40						
45	3.35	31.93	25.43						

USS BURTON ISLAND; September 13, 1958; 0100 GCT; 62°58'N, 168°00'W; sounding, 15 m; wind, 150°, force 4; weather, intermittent slight drizzle; sea, smooth. 1

0	5.27	31.81	25.14	0	5.27	31.81	25.14	283	0.00
5	4.97	31.85	25.21	10	4.21	31.91	25.33	265	0.03
10	4.21	31.91	25.33	20	4.22	31.94	25.36	263	0.05
15	4.20	31.93	25.35						
20	4.22	31.94	25.36						

a) Stations 7 through 37, occupied in the Beaufort and Chuckchee Seas, are not included here because they are outside the area covered by this series. These data are available at the National Oceanographic Data Center in Washington, D. C.

UW

88-188

OBSERVED					COMPUTED	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m

188-001

BROWN BEAR; February 19, 1958; 2100 GCT;[a] 47°44'N, 122°25'W; sounding, 283 m; wind, calm; weather, cloudy; sea, smooth; wire angle, 00°, 00°.

0b)	8.82	28.15	5.71	2.33	21.82	0	8.82	28.15	5.71	2.33	21.82	600	0.00
5	8.79	28.31	5.73	2.37	21.95	10	8.75	28.68	5.68	2.38	22.24	560	0.06
10	8.75	28.68	5.68	2.38	22.24	20	8.70	29.35	5.48	2.44	22.77	510	0.11
20	8.70	29.35	5.48	2.44	22.77	30	8.69	29.42	5.47	2.33	22.83	504	0.16
30	8.69	29.42	5.47	2.33	22.83	50	8.63	29.49	5.23	2.24	22.89	498	0.26
49	8.63	29.49	5.22	2.25	22.89	75	8.60	29.53	5.31	2.22	22.93	495	0.39
74	8.60	29.53	5.31	2.21	22.93	100	8.60	29.56	5.30	2.38	22.95	493	0.51
99	8.60	29.55	5.31	2.38	22.94	150	8.64	29.76	5.08	2.41	23.10	480	0.75
148	8.64	29.76	5.08	2.41	23.10	200	8.71	29.81	5.03	2.39	23.13	478	0.99
197	8.71	29.81	5.03	2.39	23.13	250	8.73	29.82	5.01	2.45	23.13	478	1.23
238c)	8.73	29.81	5.02	2.44	23.13								
267	8.71	29.83	5.00	2.47	23.14								

188-002

BROWN BEAR; February 19, 1958; 2300 GCT; 47°54'N, 122°28'W; sounding, 201 m; wind, 300°, force 2; weather, cloudy; sea, smooth; wire angle, 02°.

0	8.76	28.55	5.67	2.36	22.14	0	8.76	28.55	5.67	2.36	22.14	570	0.00
5	8.70	28.68	5.58	2.32	22.25	10	8.70	28.68	5.60	2.36	22.25	559	0.06
10	8.70	28.68	5.60	2.36	22.25	20	8.67	28.87	5.52	2.31	22.40	545	0.11
20	8.67	28.87	5.52	2.31	22.40	30	8.58	29.39	5.42	2.22	22.82	505	0.16
29	8.59	29.38	5.41	2.23	22.81	50	8.52	29.46	5.49	2.12	22.88	499	0.26
48	8.52	29.46	5.49	2.13	22.88	75	8.52	29.51	5.45	2.12	22.92	496	0.39
73	8.51	29.50	5.47	2.10	22.92	100	8.61	29.60	5.29	2.27	22.98	491	0.51
98	8.60	29.60	5.30	2.26	22.98	150	8.74	29.68	5.07	2.36	23.02	487	0.75
147	8.74	29.68	5.08	2.36	23.02								
186	8.76	29.72	4.88	2.39	23.05								

188-003

BROWN BEAR; February 20, 1958; 0100 GCT; 48°05'N, 122°39'W; sounding, 182 m; wind, calm; weather, partly cloudy; sea, smooth; wire angle, 00°.

0	8.52	29.90	5.60	1.96	23.23	0	8.52	29.90	5.60	1.96	23.23	466	0.00
5	8.50	29.94	5.63	1.94	23.26	10	8.51	29.96	5.64	1.95	23.28	461	0.05
10	8.51	29.96	5.64	1.95	23.28	20	8.50	29.97	5.61	2.01	23.28	460	0.09
20	8.50	29.97	5.61	2.01	23.28	30	8.52	29.97	5.60	2.09	23.28	461	0.14
30	8.52	29.97	5.60	2.09	23.28	50	8.52	30.00	5.67	1.97	23.31	459	0.23
50	8.52	30.00	5.67	1.97	23.31	75	8.53	30.04	5.60	2.03	23.34	456	0.34
74	8.53	30.04	5.60	2.03	23.34	100	8.52	30.05	5.66	2.08	23.34	456	0.46
99	8.52	30.04	5.66	2.08	23.34								
123	8.54	30.14	5.60	2.04	23.41								
148	8.52	30.18	5.60	2.05	23.45								

188-004

BROWN BEAR; February 20, 1958; 0300 GCT; 48°12'N, 122°54'W; sounding, 91 m; wind, calm; weather, partly cloudy; sea, calm; wire angle, 03°.

0	8.50	30.20	5.66	2.11	23.46	0	8.50	30.20	5.66	2.11	23.46	443	0.00
5	8.48	30.33	5.60	2.12	23.57	10	8.47	30.46	5.58	1.99	23.67	423	0.04
10	8.47	30.46	5.58	1.99	23.67	20	8.54	30.70	5.57	1.96	23.85	407	0.08
20	8.54	30.70	5.57	1.96	23.85	30	8.62	30.97	5.54	1.86	24.05	388	0.12
30	8.62	30.97	5.54	1.86	24.05	50	8.67	31.11	5.50	1.80	24.15	378	0.20
50	8.67	31.11	5.50	1.80	24.15	75	8.76	31.31	5.48	1.76	24.29	365	0.30
75	8.76	31.31	5.48	1.76	24.29								

a) Times reported are those of the messenger release of the shallow cast to the nearest hour (when half way between, to the nearest even hour). Wire angles are given in the numerical order of casts.
b) Second cast.
c) First cast.

UW 88-188

	OBSERVED					COMPUTED	INTERPOLATED					COMPUTED		
	Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
	m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
188-005	BROWN BEAR; February 20, 1958; 0500 GCT; 48°14'N, 123°14'W; sounding, 139 m; wind, 220°, force 1; weather, partly cloudy; sea, calm; wire angle, 04°.													
	0	8.43	30.46	5.73	1.97	23.68	0	8.43	30.46	5.73	1.97	23.68	423	0.00
	5	8.52	30.55	5.68	1.97	23.73	10	8.61	30.64	5.69	1.92	23.79	412	0.04
	10	8.61	30.64	5.69	1.92	23.79	20	8.56	30.66	5.66	1.93	23.81	410	0.08
	20	8.56	30.66	5.66	1.93	23.81	30	8.52	30.73	5.67	1.96	23.88	404	0.12
	30	8.52	30.73	5.67	1.96	23.88	50	8.60	31.02	5.48	1.82	24.09	384	0.20
	49	8.60	31.01	5.48	1.82	24.08	75	8.76	31.29	5.42	1.86	24.28	367	0.30
	74	8.75	31.27	5.42	1.86	24.26	100	8.96	31.61	5.40	1.79	24.50	346	0.39
	99	8.96	31.60	5.40	1.79	24.49								
	129	8.98	31.71	5.34	1.78	24.57								
188-006	BROWN BEAR; February 20, 1958; 0700 GCT; 48°16'N, 123°41'W; sounding, 183 m; wind, 300°, force 2; weather, partly cloudy; sea, calm; wire angle, 03°.													
	0	8.65	30.99	5.56	1.78	24.06	0	8.65	30.99	5.56	1.78	24.06	386	0.00
	5	8.64	31.00	5.57	1.77	24.07	10	8.64	31.00	5.59	1.81	24.07	386	0.04
	10	8.64	31.00	5.59	1.81	24.07	20	8.62	31.08	5.60	1.73	24.13	380	0.08
	20	8.62	31.08	5.60	1.73	24.13	30	8.76	31.26	5.48	1.74	24.25	368	0.11
	30	8.76	31.26	5.48	1.74	24.25	50	8.80	31.31	5.47	1.69	24.29	365	0.19
	50	8.80	31.31	5.47	1.69	24.29	75	9.04	31.63	5.41	1.61	24.50	346	0.28
	74	9.03	31.62	5.41	1.62	24.49	100	9.26	31.92	5.42	1.50	24.69	328	0.36
	99	9.26	31.91	5.42	1.50	24.68	150	9.39	32.29	5.25	1.41	24.96	303	0.52
	138	9.36	32.18	5.32	1.41	24.88								
	177	9.46	32.57	5.01	1.47	25.17								
188-007	BROWN BEAR; February 20, 1958; 0800 GCT; 48°18'N, 124°03'W; sounding, 192 m; wind, 300°, force 3; weather, partly cloudy; sea, smooth; wire angle, 04°.													
	0	8.76	30.73	6.08	1.68	23.84	0	8.76	30.73	6.08	1.68	23.84	407	0.00
	5	8.74	30.73	6.05	1.70	23.84	10	8.60	30.82	5.92	1.71	23.93	398	0.04
	10	8.60	30.82	5.92	1.71	23.93	20	8.54	30.95	5.82	1.74	24.04	388	0.08
	20	8.54	30.95	5.82	1.74	24.04	30	8.60	31.02	5.68	1.75	24.09	384	0.12
	30	8.60	31.02	5.68	1.75	24.09	50	8.61	31.18	5.50	1.72	24.21	372	0.19
	50	8.61	31.18	5.50	1.72	24.21	75	8.58	31.33	5.34	1.76	24.33	361	0.29
	74	8.56	31.31	5.34	1.76	24.32	100	9.00	31.75	5.35	1.82	24.60	336	0.37
	99	8.98	31.73	5.34	1.82	24.59	150	9.57	32.58	5.16	1.72	25.16	284	0.53
	138	9.55	32.43	5.29	1.74	25.04								
	178	9.31	32.79	4.66	1.69	25.36								
188-008	BROWN BEAR; February 20, 1958; 1300 GCT; 48°27'N, 124°31'W; sounding, 237 m; wind, 200°, force 3; weather, intermittent slight drizzle; sea, smooth; wire angle, 05°.													
	0	10.31	28.66		0.90	21.99	0	10.31	28.66		0.90	21.99	584	0.00
	5	10.20	29.00		1.08	22.27	10	10.02	29.74		1.14	22.87	500	0.05
	10	10.02	29.74		1.14	22.87	20	9.70	30.10		1.27	23.20	468	0.10
	20	9.70	30.10		1.27	23.20	30	9.29	30.28		1.13	23.41	449	0.15
	30	9.29	30.28		1.13	23.41	50	8.82	31.11		1.61	24.13	381	0.23
	50	8.82	31.11		1.61	24.13	75	9.13	31.69		1.52	24.53	342	0.32
	75	9.13	31.69		1.52	24.53	100	9.46	32.29		1.42	24.95	303	0.40
	100	9.46	32.29		1.42	24.95	150	9.65	32.88		1.50	25.38	264	0.54
	125	9.44	32.61		1.43	25.20	200		33.28		1.71			
	150	9.65	32.88		1.50	25.38								
	175	9.30	33.08		1.69	25.59								
	200	8.96	33.28		1.71	25.80								
	225	-	33.28		1.84									
188-009	BROWN BEAR; February 20, 1958; 1800 GCT; 48°28'N, 125°08'W; sounding, 153 m; wind, 140°, force 5; weather, intermittent slight rain; sea, moderate; wire angle, 12°.													
	0	10.23	32.52	6.04	0.93	25.00	0	10.23	32.52	6.04	0.93	25.00	297	0.00
	10	10.21	32.52	6.00	0.96	25.00	10	10.21	32.52	6.00	0.96	25.00	296	0.03
	20	10.21	32.51	5.98	0.94	25.00	20	10.21	32.51	5.98	0.94	25.00	297	0.06
	30	10.22	32.56	5.96	0.93	25.03	30	10.22	32.56	5.96	0.93	25.03	294	0.09
	50	10.20	32.61	5.91	0.90	25.08	50	10.20	32.61	5.91	0.90	25.08	290	0.15
	74	10.16	32.63	5.89	0.90	25.10	75	10.16	32.63	5.89	0.90	25.10	289	0.22
	99	10.12	32.72	5.73	0.99	25.17	100	10.12	32.72	5.72	1.00	25.17	282	0.29
	129	9.87	32.86	5.34	1.39	25.33								

OBSERVED					COMPUTED	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m

188-010

BROWN BEAR; February 21, 1958; 0100 GCT; 48°00'N, 125°22'W; sounding, 630 m; wind, 160°, force 7; weather, overcast; sea, rough; wire angle, 35°, 35°.

0a)	10.58	32.72	6.12	0.96	25.10	0	10.58	32.72	6.12	0.96	25.10	288	0.00
10	10.57	32.71	6.05	0.85	25.09	10	10.57	32.71	6.05	0.85	25.09	288	0.03
19	10.56	32.72	6.05	0.80	25.10	20	10.56	32.72	6.05	0.79	25.10	288	0.06
28	10.56	32.72	6.06	0.74	25.10	30	10.56	32.72	6.06	0.74	25.10	288	0.09
48	10.58	32.72	6.06	0.77	25.10	50	10.59	32.72	6.06	0.76	25.09	289	0.14
72	10.57	32.74	5.94	0.77	25.11	75	10.54	32.75	5.93	0.78	25.13	286	0.22
96	10.27	32.87	5.59	0.96	25.27	100	10.22	32.93	5.41	1.03	25.32	268	0.29
120	9.76	33.19	4.67	1.32	25.60	150	8.45	33.39	4.17	1.68	25.96	208	0.40
144	8.68	33.37	4.16	1.60	25.91	200	7.78	33.67	3.36	1.98	26.28	178	0.50
						250	7.53						
152b)	8.38	33.40	4.17	1.71	25.98	300	6.97						
						400	6.00						
168a)	7.78	33.45	4.14	1.86	26.11	500	5.21						
236b)	7.69	33.86	2.62	2.10	26.45								
414	5.88	34.03	1.27	2.46	26.82								
508	5.15	-	2.27u	1.90u									

188-011

BROWN BEAR; February 22, 1958; 0000 GCT; 47°36'N, 126°48'W; sounding, 2450 m; wind, 190°, force 5; weather, overcast; sea, moderate; wire angle, 05°, 06°, 05°.

0c)	9.02	31.96	6.37u	0.81	24.76	0	9.02	31.96		0.81	24.76	320	0.00
10	9.00	31.94	4.37u	0.75	24.75	10	9.00	31.94		0.75	24.75	321	0.03
20	9.00	31.97	2.70u	0.77	24.77	20	9.00	31.97		0.77	24.77	319	0.06
30	8.98	32.00	4.16u	0.76	24.80	30	8.98	32.00		0.76	24.80	316	0.10
50	8.98	32.01	4.21u	0.83	24.81	50	8.98	32.01		0.83	24.81	316	0.16
75	8.61	32.10	6.20u	0.99	24.93	75	8.61	32.10		0.99	24.93	304	0.24
100	7.22	32.65	3.25u	1.24	25.56	100	7.22	32.65		1.24	25.56	245	0.31
125	7.14	32.98	1.79u	1.65	25.83	150	6.98	33.26		1.82	26.07	197	0.42
150	6.98	33.26	1.79u	1.82	26.07	200	6.69	33.61	3.51	2.05	26.39	168	0.51
175	6.92	33.40	1.76u	1.85	26.19	250	6.16	33.63	2.76	2.10	26.47	160	0.59
						300	5.76	33.65	2.13	2.16	26.54	154	0.67
192b)	6.78	33.61	3.64	2.04	26.38	400	5.30	33.69	1.24	2.25	26.63	147	0.82
291	5.80	-	2.22	2.15		500	4.88	33.73	0.61	2.39	26.70	140	0.96
491	4.92	33.73	0.65	2.37	26.70	600	4.51	33.76	0.29	2.64	26.77	134	1.10
738	4.06	33.86	0.06	2.90	26.89	700	4.18	33.82	0.10	2.84	26.85	127	1.23
						800	3.90	33.94	0.10	2.98	26.98	115	1.35
983a)	3.45	34.16	0.24	3.16	27.20	1000	3.41	34.17	0.25	3.19	27.21	94	1.56
1484	2.47	34.45	0.74	3.38	27.51	1200	2.97	34.30	0.44	3.40	27.35	81	1.73
1784	2.09	34.55	1.10	2.96	27.63	1500	2.45	34.46	0.76	3.37	27.52	65	1.95

a) Second cast.
b) First cast.
c) Third cast.

UW 88-188

OBSERVED					COMPUTED	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m

188-012 BROWN BEAR; February 22, 1958; 0800 GCT; 47°31'N, 127°34'W; sounding, 2615 m; wind, 180°, force 2; weather, partly cloudy; sea, moderate; wire angle, 27°, 18°.

0a)	9.10	32.40	6.12	0.81	25.09	0	9.10	32.40	6.12	0.81	25.09	288	0.00
10	9.09	32.40	6.29	0.75	25.09	10	9.09	32.40	6.29	0.75	25.09	288	0.03
20	9.08	32.37	6.26	0.77	25.07	20	9.08	32.37	6.26	0.77	25.07	290	0.06
30	9.07	32.38	6.23	0.76	25.08	30	9.07	32.38	6.23	0.76	25.08	290	0.09
50	9.09	32.40	6.28	0.83	25.09	50	9.09	32.40	6.28	0.83	25.09	289	0.14
75	7.75	32.64	5.95	0.99	25.48	75	7.75	32.64	5.95	0.99	25.48	252	0.21
100	7.19	32.98	5.29	1.24	25.83	100	7.19	32.98	5.29	1.24	25.83	220	0.27
120	7.22	33.37	4.76	1.65	26.13	150	7.12	33.66	3.98	1.86	26.37	169	0.37
142	7.09	33.62	4.21	1.82	26.34	200	6.76	33.81	3.46	2.04	26.54	154	0.45
						250	6.23	33.87	3.21	2.16	26.65	143	0.52
164b)	7.31	33.72	3.57	2.04	26.39	300	5.76	33.89	2.88	2.22	26.73	136	0.59
						400	5.05	33.97	2.11	2.42	26.88	123	0.72
173a)	6.98	33.78	2.31u	1.85	26.48	500	4.63	34.09	1.17	2.72	27.02	110	0.84
						600	4.30	34.17	0.60	2.93	27.12	101	0.94
239b)	6.34	33.87	3.28	2.15	26.64	700	4.08	34.22	0.41	3.05	27.18	96	1.04
386	5.11	33.95	2.27	2.37	26.85	800	3.85	34.27	0.27	3.15	27.24	90	1.14
580	4.35	34.16	0.65	2.90	27.10	1000	3.35	34.37	0.18	3.39	27.37	79	1.31
806	3.84	34.27	0.26	3.16	27.24	1200	2.94	34.45	0.23	3.39	27.47	70	1.45
1214	2.91	34.45	0.24	3.38	27.48								
1490	2.49	34.51	0.55	2.96	27.56								

188-013 BROWN BEAR; February 22, 1958; 1800 GCT; 46°55'N, 127°46'W; sounding, 2670 m; wind, 140°, force 2; weather, fog; sea, slight; wire angle, 12°, 06°.

0a)	9.10	32.40	6.36	0.90	25.09	0	9.10	32.40	6.36	0.90	25.09	288	0.00
10	9.09	32.42	6.38	0.84	25.11	10	9.09	32.42	6.38	0.84	25.11	287	0.03
20	9.07	32.44	6.29	0.97	25.13	20	9.07	32.44	6.29	0.97	25.13	285	0.06
30	9.04	32.41	6.38	0.88	25.11	30	9.04	32.41	6.38	0.88	25.11	287	0.09
50	9.02	32.41	6.27	0.84	25.11	50	9.02	32.41	6.27	0.84	25.11	287	0.14
75	8.30	32.51	6.12	0.91	25.30	75	8.30	32.51	6.12	0.91	25.30	269	0.21
100	6.44	32.91	5.80	1.23	25.87	100	6.44	32.91	5.80	1.23	25.87	215	0.28
125	6.44	33.22	5.51	1.56	26.11	150	6.74	33.52	4.85	1.74	26.31	174	0.37
144	6.70	-	5.05	-		200	6.73	33.84	3.58	2.02	26.56	151	0.45
175	7.02	33.78	3.86	1.96	26.48	250	6.31	33.89	2.81	2.23	26.66	142	0.53
						300	5.91	33.94	2.19	2.40	26.75	134	0.60
195b)	6.70	33.86	3.81	1.94	26.58	400	5.14	34.01	1.42	2.56	26.90	121	0.72
295	5.95	33.94	2.23	2.39	26.74	500	4.58	34.08	0.87	2.69	27.02	110	0.84
488	4.62	34.07	0.91	2.68	27.00	600	4.26	34.14	0.58	2.78	27.10	103	0.95
738	3.90	34.24	0.32	2.89	27.21	700	3.99	34.21	0.38	2.86	27.18	96	1.04
985	3.45	34.43	0.26	3.05	27.41	800	3.79	34.29	0.29	2.95	27.27	88	1.14
1480	2.51	34.62	0.54	2.83	27.65	1000	3.42	34.44	0.26	3.04	27.42	74	1.30
1768	2.13	34.54	1.03	2.89	27.61	1200	3.00	34.56	0.29	2.90	27.56	62	1.44
						1500	2.48	34.62	0.57	2.83	27.65	54	1.61

a) Second cast.
b) First cast.

OBSERVED					COMPUTED	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m

188-014

BROWN BEAR; February 23, 1958; 0400 GCT; 46°57'N, 126°57'W; sounding, 2650 m; wind, 190°, force 2; weather, cloudy; sea, slight; wire angle, 30°, 32°, 08°.

0a)	9.50	32.44	6.40	0.70	25.06	0	9.50	32.44	6.40	0.70	25.06	291	0.00
10	9.48	32.45	6.34	0.76	25.07	10	9.48	32.45	6.34	0.76	25.07	290	0.03
20	9.46	32.46	6.27	0.68	25.08	20	9.46	32.46	6.27	0.68	25.08	289	0.06
30	9.44	32.47	6.20	0.65	25.09	30	9.44	32.47	6.20	0.65	25.09	288	0.09
50	9.15	32.63	5.82	0.75	25.26	50	9.15	32.63	5.82	0.75	25.26	273	0.14
75	7.82	33.24	4.78	1.49	25.94	75	7.82	33.24	4.78	1.49	25.94	208	0.20
100	7.83	33.51	4.02	1.52	26.15	100	7.83	33.51	4.02	1.52	26.15	189	0.25
125	7.56	33.68	3.74	1.82	26.32	150	7.65	33.80	2.90	1.98	26.40	166	0.34
150	7.65	33.80	2.90	1.98	26.40	200	7.31	33.93	2.35	2.23	26.55	152	0.42
						250	6.93	34.00	1.86	2.40	26.66	142	0.50
155b)	7.56	33.88	2.87	2.07	26.48	300	6.55	34.05	1.45	2.52	26.75	134	0.56
						400	5.82	34.10	0.89	2.69	26.89	122	0.69
175a)	7.61	33.86	2.65	2.09	26.46	500	5.15	34.12	0.61	2.79	26.98	114	0.81
						600	4.58	34.14	0.47	2.85	27.06	107	0.92
234b)	7.05	33.98	2.00	2.36	26.63	700	4.10	34.17	0.43	2.87	27.14	100	1.02
377	5.99	34.10	0.97	2.66	26.86	800	3.81	34.24	0.36	2.88	27.22	92	1.12
568	4.75	34.13	0.49	2.84	27.04	1000	3.44	34.37	0.25	2.90	27.36	80	1.29
						1200	3.10	34.45	0.29	2.93	27.46	71	1.44
747c)	3.91	34.19	0.41	2.88	27.17								
1153	3.18	34.44	0.27	2.92	27.44								
1431	2.73	34.47	0.52	2.97	27.51								

188-015

BROWN BEAR; February 23, 1958; 1200 GCT; 46°56'N, 126°20'W; sounding, 2560 m; wind, 160°, force 4; weather, fog in patches; sea, slight; wire angle, 12°, 25°, 15°.

0a)	9.45	32.47	6.31	0.95	25.09	0	9.45	32.47	6.31	0.95	25.09	288	0.00
10	9.45	32.47	6.31	1.09	25.09	10	9.45	32.47	6.31	1.09	25.09	288	0.03
20	9.46	32.41	6.35	0.84	25.04	20	9.46	32.41	6.35	0.84	25.04	293	0.06
30	9.46	32.48	6.28	0.83	25.10	30	9.46	32.48	6.28	0.83	25.10	288	0.09
50	9.53	32.50	6.22	0.87	25.10	50	9.53	32.50	6.22	0.87	25.10	288	0.14
75	9.97	32.79	5.75	0.98	25.25	75	9.97	32.79	5.75	0.98	25.25	274	0.22
100	8.61	33.30	4.57	1.54	25.87	100	8.61	33.30	4.57	1.54	25.87	216	0.28
125	8.12	33.48	4.04	2.04	26.08	150	7.55	33.57	4.10	2.00	26.24	181	0.38
150	7.55	33.57	4.10	2.00	26.24	200	7.21	33.95	2.31	2.42	26.58	149	0.46
175	7.64	33.78	3.35	2.11	26.39	250	6.82	33.97	1.92	2.55	26.65	143	0.53
						300	6.46	34.00	1.58	2.67	26.73	137	0.60
200b)	7.21	33.95	2.31	2.42	26.58	400	5.83	34.07	1.02	2.86	26.86	125	0.73
300	6.46	34.00	1.58	2.67	26.73	500	5.27	34.11	0.63	3.01	26.96	116	0.85
494	5.30	34.11	0.64	3.00	26.96	600	4.76	34.10	0.42	3.12	27.01	112	0.97
						700	4.32	34.14	0.29	3.21	27.09	105	1.08
700c)	4.32	34.14	0.29	3.21	27.09	800	3.99	34.25	0.25	3.26	27.21	94	1.17
920	3.63	34.36	0.24	3.30	27.34	1000	3.45	34.39	0.27	3.31	27.38	78	1.35
1420	2.66	34.51	0.56	3.28	27.55	1200	3.04	34.46	0.38	3.32	27.47	70	1.49
1710	2.27	34.54	0.88	3.15	27.60	1500	2.54	34.52	0.64	3.25	27.56	62	1.69

a) Third cast.
b) First cast.
c) Second cast.

UW

88-188

OBSERVED					COMPUTED	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m

188-016 BROWN BEAR; February 23, 1958; 1900 GCT; 46°57'N, 125°45'W; sounding, 1884 m; wind, 150°, force 6; weather, intermittent slight rain; sea, moderate; wire angle, 48°, 14°, 13°.

0a)	9.88	32.52	4.80	1.04	25.06	0	9.88	32.52	4.80	1.04	25.06	291	0.00
10	9.89	32.52	5.89	0.97	25.06	10	9.89	32.52	5.89	0.97	25.06	291	0.03
20	9.88	32.47	6.24	0.92	25.02	20	9.88	32.47	6.24	0.92	25.02	295	0.06
30	9.87	32.50	6.20	0.88	25.05	30	9.87	32.50	6.20	0.88	25.05	293	0.09
50	9.89	32.61	6.06	0.89	25.13	50	9.89	32.61	6.06	0.89	25.13	286	0.14
75	9.88	32.65	5.92	0.90	25.16	75	9.88	32.65	5.92	0.90	25.16	283	0.22
100	9.17	33.31	4.39	1.51	25.79	100	9.17	33.31	4.39	1.51	25.79	223	0.28
						150	8.37	33.68	3.06	2.00	26.20	185	0.38
115b)	8.68	33.51	3.82	1.76	26.02	200	7.68	33.91	2.37	2.19	26.49	159	0.47
146	8.44	33.66	3.16	1.97	26.18	250	7.21	33.94	2.01	2.28	26.58	151	0.54
167	8.15	33.80	2.77	2.05	26.33	300	6.81	33.96	1.74	2.33	26.65	144	0.62
						400	5.97	34.04	1.24	2.46	26.82	129	0.75
175c)	8.10	33.86	2.72	2.04	26.39	500	5.20	34.12	0.77	2.73	26.98	114	0.88
212	7.50	33.93	2.22	2.25	26.53	600	4.66	34.20	0.45	2.94	27.10	103	0.99
340	6.49	33.98	1.53	2.38	26.71	700	4.36	34.26	0.33	2.95	27.18	96	1.09
460	5.50	34.09	0.97	2.58	26.92	800	4.09	34.31	0.26	2.97	27.25	90	1.18
576	4.73	34.18	0.48	2.94	27.08	1000	3.58	34.42	0.18	3.05	27.39	78	1.35
852	3.96	34.34	0.24	2.98	27.29	1200	(3.03)	(34.38)	(0.00)	(3.06)	(27.41)	(76)	(1.50)
1080	3.45	34.43	0.27	3.05	27.41	1500	(2.58)	(34.47)	(0.36)	(2.97)	(27.52)	(66)	(1.71)

188-017 BROWN BEAR; February 24, 1958; 1600 GCT; 47°44'N, 126°05'W; sounding, 1646 m; wind, 180°, force 5; weather, overcast; sea, moderate; wire angle, 07°, 03°.

0c)	9.56	32.36	6.19	0.79	24.99	0	9.56	32.36	6.19	0.79	24.99	298	0.00
10	9.58	32.43	6.20	0.74	25.04	10	10.68	32.65	5.98	0.74	25.02	294	0.03
20	9.66	32.50	6.18	0.74	25.08	20	10.64	32.65	6.04	0.74	25.03	294	0.06
30	9.67	32.50	6.19	0.74	25.08	30	10.59	32.66	6.04	0.71	25.05	293	0.09
50	9.76	32.50	6.13	0.72	25.06	50	10.62	32.68	6.00	0.75	25.06	292	0.15
75	10.04	32.57	6.04	0.74	25.07	75	10.61	32.68	6.01	0.70	25.06	292	0.22
100	9.58	33.15	4.86	1.22	25.60	100	10.60	32.68	6.08	0.73	25.06	293	0.29
123	7.97	33.35	4.50	1.67	26.01	150	9.44	33.16	4.69	1.39	25.63	240	0.42
148	7.90	33.69	3.45	1.95	26.28	200	8.63	33.43	3.81	1.69	25.97	208	0.54
172	7.53	33.77	3.19	2.00	26.40	250	7.96	33.71	3.05	1.98	26.29	178	0.63
198d)	7.38	33.87	2.65	2.14	26.50								
298	6.30	33.96	1.81	2.42	26.71								
497	5.24	34.11	0.73	2.77	26.96								
746	4.06	34.22	0.20	2.84	27.18								
996	3.55	34.42	0.31	3.13	27.39								
1494	2.59	34.47	0.34	2.97	27.52								
1594	2.52	34.54	0.73	2.94	27.58								

a) Third cast.
b) Fourth cast.
c) Second cast.
d) First cast.

OBSERVED					COMPUTED	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m

188-018

BROWN BEAR; February 25, 1958; 0000 GCT; 47°26'N, 125°27'W; sounding, 1280 m; wind, 140°, force 3; weather, fog in patches; sea, moderate; wire angle, 43°, 42°, 15°.

0a)	10.66	32.68	6.03	0.77	25.05	0	10.66	32.68	6.03	0.77	25.05	292	0.00
10	10.66	32.70	6.06	0.78	25.07	10	10.66	32.70	6.06	0.78	25.07	290	0.03
20	10.66	32.70	6.06	0.85	25.07	20	10.66	32.70	6.06	0.85	25.07	291	0.06
30	10.66	32.74	6.03	0.75	25.10	30	10.66	32.74	6.03	0.75	25.10	288	0.09
50	10.69	32.75	5.94	0.76	25.10	50	10.69	32.75	5.94	0.76	25.10	288	0.14
75	10.67	32.75	5.88	0.79	25.10	75	10.67	32.75	5.88	0.79	25.10	288	0.22
100	10.34	32.97	5.24	1.15	25.33	100	10.34	32.97	5.24	1.15	25.33	267	0.29
111	9.46	33.42	3.85	1.69	25.83	150	9.00	33.59	3.18	1.93	26.04	201	0.40
142	8.99	33.57	3.16	1.95	26.02	200	8.79	33.66	2.86	2.07	26.12	194	0.50
						250	8.68	33.71	2.68	2.11	26.18	189	0.60
148b)	9.07	33.58	3.26	1.90	26.02	300	8.50	33.77	2.54	2.11	26.25	183	0.69
						400	7.54	33.93	1.97	2.34	26.52	158	0.86
172a)	8.88	33.62	3.06	1.98	26.08	500	6.34	34.04	1.31	2.59	26.77	135	1.01
222b)	8.71	33.69	2.72	2.13	26.16								
360c)	8.08	33.84	2.28	2.18	26.37								
494	6.34	34.05	1.30	2.61	26.78								
554	5.64	34.07	0.93	2.71	26.88								
574	5.07	34.13	0.57	2.88	27.00								

188-019

BROWN BEAR; February 25, 1958; 0600 GCT; 48°11'N, 125°02'W; sounding, 271 m; wind, 100°, force 4; weather, overcast; sea, slight; wire angle, 10°, 12°.

0d)	10.69	32.60	6.06	0.76	24.98	0	10.69	32.60	6.06	0.76	24.98	298	0.00
10	10.68	32.65	5.98	0.74	25.02	10	10.68	32.65	5.98	0.74	25.02	294	0.03
20	10.64	32.65	6.04	0.74	25.03	20	10.64	32.65	6.04	0.74	25.03	294	0.06
29	10.59	32.66	6.04	0.71	25.05	30	10.59	32.66	6.04	0.71	25.05	293	0.09
49	10.62	32.68	6.00	0.75	25.06	50	10.62	32.68	6.00	0.75	25.06	292	0.15
73	10.61	32.68	6.00	0.70	25.06	75	10.61	32.68	6.01	0.70	25.06	292	0.22
98	10.57	32.69	6.05	0.74	25.08	100	10.60	32.68	6.08	0.73	25.06	293	0.29
122	10.53	32.72	5.96	0.82	25.11	150	9.44	33.16	4.69	1.39	25.63	240	0.42
146	9.53	33.11	4.82	1.34	25.58	200	8.63	33.43	3.81	1.69	25.97	208	0.54
171	9.03	33.33	4.18	1.58	25.83	250	7.96	33.71	3.05	1.98	26.29	178	0.63
190b)	8.77	33.39	3.94	1.65	25.92								
258	7.85	33.77	2.92	2.04	26.35								

188-020

BROWN BEAR; February 25, 1958; 1800 GCT; 48°09'N, 125°50'W; sounding, 1024 m; wind, 280°, force 6; weather, intermittent heavy rain; sea, rough; wire angle, 26°, 15°.

0d)	10.24	32.55	6.18	0.68	25.02	0	10.24	32.55	6.18	0.68	25.02	294	0.00
10	10.23	32.57	6.13	0.77	25.04	10	10.23	32.57	6.13	0.77	25.04	293	0.03
19	10.25	32.58	6.14	0.71	25.04	20	10.24	32.57	6.14	0.71	25.04	293	0.06
29	10.18	32.54	6.17	0.71	25.02	30	10.19	32.54	6.17	0.71	25.02	295	0.09
48	10.28	32.57	6.15	0.71	25.03	50	10.31	32.57	6.15	0.70	25.03	295	0.15
72	10.40	32.70	5.91	0.76	25.11	75	10.39	32.74	5.83	0.79	25.14	284	0.22
96	10.06	33.03	5.21	1.07	25.43	100	9.92	33.09	5.02	1.17	25.50	251	0.28
120	9.21	33.31	4.36	1.55	25.78	150	8.23		4.12	1.77			
144	8.29	33.42	4.24	1.76	26.01	200	7.79		3.09	1.94			
168	8.03	33.62	3.76	1.80	26.21	250	7.36		2.24	2.16			
						300	6.93		1.89	2.34			
171b)	8.07	-	3.66	1.80		400	6.14		1.39	2.61			
258	7.29	-	2.13	2.19		500	5.35		1.00	2.73			
437	5.86	-	1.23	2.69		600	4.71		0.70	2.80			
663	4.40	-	0.54	2.85		700	4.25		0.46	2.88			
800	3.99	-	0.29	2.99		800	3.99		0.29	2.99			

a) Fourth cast.
b) First cast.
c) Third cast.
d) Second cast.

	OBSERVED					COMPUTED	INTERPOLATED					COMPUTED		
	Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
	m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
188-021	BROWN BEAR; February 26, 1958; 0300 GCT; 48°10'N, 126°32'W; sounding, 2463 m; wind, 280°, force 6; weather, partly cloudy; sea, rough; wire angle, 15°, 11°, 08°, 07°.													
	0a)	9.87	32.49	6.15	0.76	25.04	0	9.87	32.49	6.15	0.76	25.04	293	0.00
	10	9.83	32.49	6.20	0.81	25.04	10	9.83	32.49	6.20	0.81	25.04	293	0.03
	20	9.85	32.55	6.18	0.79	25.09	20	9.85	32.55	6.18	0.79	25.09	289	0.06
							30	9.84	32.52	6.20	0.78	25.07	291	0.09
	30b)	9.84	32.52	6.20	0.78	25.07	50	9.99	32.62	6.14	0.82	25.12	286	0.14
	50	9.99	32.62	6.14	0.82	25.12	75	9.65	32.87	5.25	1.17	25.37	263	0.21
	74	9.75	32.85	5.26	1.15	25.34	100	8.02	33.28	4.78	1.55	25.94	209	0.27
	99	8.03	33.27	4.80	1.54	25.93	150	7.89	33.72	3.24	2.05	26.31	175	0.37
	124	7.87	33.52	4.14	1.83	26.15	200	7.36	33.87	2.71	2.19	26.50	157	0.45
	149	7.89	33.71	3.25	2.05	26.30	250	6.94	33.98	2.11	2.47	26.65	144	0.53
							300	6.53	34.05	1.62	2.67	26.76	134	0.60
	173c)	7.74	33.81	2.96	2.13	26.40	400	5.71	34.08	0.99	2.81	26.88	123	0.72
	195	7.40	33.86	2.78	2.16	26.49	500	5.07	34.11	0.56	2.92	26.98	114	0.84
	293	6.59	34.05	1.67	2.66	26.75	600	4.68	34.16	0.37	3.02	27.07	106	0.95
	489	5.12	34.11	0.59	2.91	26.98	700	4.32	34.22	0.24	3.10	27.15	99	1.06
	735	4.21	34.24	0.21	3.12	27.18	800	4.02	34.29	0.21	3.15	27.24	91	1.15
	978	3.56	34.41	0.25	3.20	27.38	1000	3.51	34.42	0.26	3.19	27.40	77	1.32
	1477	2.61	34.52	0.66	3.02	27.56	1200	3.10	34.47	0.40	3.11	27.48	70	1.47
							1500	2.57	34.52	0.69	3.01	27.56	62	1.66
	1775d)	2.19	34.55	1.03	2.95	27.62								
188-022	BROWN BEAR; February 26, 1958; 1600 GCT; 48°10'N, 127°17'W; sounding, 2560 m; wind, 260°, force 7; weather, partly cloudy; sea, moderate; wire angle, 10°, 12°, 04°.													
	0a)	8.82	32.34	6.29	0.72	25.09	0	8.82	32.34	6.29	0.72	25.09	288	0.00
	10	8.82	32.37	6.32	0.71	25.11	10	8.82	32.37	6.32	0.71	25.11	286	0.03
	20	8.82	32.35	6.29	0.75	25.10	20	8.82	32.35	6.29	0.75	25.10	288	0.06
	30	8.82	32.36	6.25	0.70	25.10	30	8.82	32.36	6.25	0.70	25.10	287	0.09
	50	8.84	32.34	6.31	0.72	25.08	50	8.84	32.34	6.31	0.72	25.08	290	0.14
	75	7.61	33.05	5.12	1.32	25.82	75	7.61	33.05	5.12	1.32	25.82	220	0.21
	100	7.37	33.40	4.36	1.64	26.13	100	7.37	33.40	4.36	1.64	26.13	191	0.26
	125	7.37	33.59	3.81	1.88	26.28	150	7.32	33.85	2.91	2.12	26.49	157	0.35
	150	7.32	33.85	2.91	2.12	26.49	200	6.96	33.93	2.30	2.27	26.60	147	0.42
	175	7.22	33.87	2.41	2.23	26.52	250	6.41	33.95	2.01	2.40	26.69	139	0.50
							300	5.97	33.98	1.72	2.52	26.77	132	0.56
	194c)	7.03	33.93	2.33	2.25	26.59	400	5.41	34.05	1.14	2.70	26.90	121	0.69
							500	4.95	34.13	0.71	2.82	27.01	111	0.81
	291d)	6.03	33.97	1.78	2.50	26.76	600	4.61	34.21	0.42	2.87	27.12	102	0.91
							700	4.29	34.28	0.24	2.93	27.21	94	1.01
	482c)	5.02	34.11	0.77	2.81	26.99	800	4.01	34.33	0.22	3.02	27.27	88	1.10
	723	4.22	34.29	0.21	2.95	27.22	1000	3.51	34.39	0.21	3.12	27.37	79	1.27
	968	3.59	34.40	0.24	3.13	27.37	1200	3.03	34.35	0.15	3.08	27.39	78	1.42
	1465	2.52	34.40	0.39	3.00	27.47	1500	2.46	34.41	0.45	2.99	27.48	69	1.64
	1763d)	2.11	34.59	1.08	2.90	27.66								

a) Third cast.
b) Fourth cast.
c) First cast.
d) Second cast.

OBSERVED					COMPUTED	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m

188-023

BROWN BEAR; February 26, 1958; 2300 GCT; 48°11'N, 128°00'W; sounding, 2401 m; wind, 260°, force 5; weather, partly cloudy; sea, slight; wire angle, 20°, 08°.

0a)	9.02	32.45	6.40	0.82	25.14	0	9.02	32.45	6.40	0.82	25.14	283	0.00
10	9.00	32.42	6.41	0.79	25.12	10	9.00	32.42	6.41	0.79	25.12	285	0.03
20	9.01	32.45	6.36	0.83	25.14	20	9.01	32.45	6.36	0.83	25.14	283	0.06
30	8.98	32.41	6.31	0.79	25.12	30	8.98	32.41	6.31	0.79	25.12	286	0.08
50	8.98	32.45	6.29	0.82	25.15	50	8.98	32.45	6.29	0.82	25.15	283	0.14
75	7.27	33.00	5.40	1.35	25.83	75	7.27	33.00	5.40	1.35	25.83	219	0.20
100	7.20	33.22	4.76	1.57	26.01	100	7.20	33.22	4.76	1.57	26.01	202	0.26
124	7.78	33.74	3.04	2.03	26.34	150	7.60	33.79	2.84	2.08	26.40	166	0.35
149	7.60	33.79	2.86	2.08	26.40	200	7.26	33.86	2.19	2.28	26.51	156	0.43
173	7.48	33.79	2.48	2.17	26.42	250	6.78	33.92	1.86	2.41	26.62	146	0.51
						300	6.36	33.99	1.56	2.54	26.73	136	0.58
188b)	7.44	33.88	2.17	2.26	26.50	400	5.62	34.11	1.07	2.78	26.92	119	0.70
281	6.51	33.96	1.67	2.49	26.69	500	5.03	34.16	0.69	2.89	27.03	110	0.82
466	5.21	34.16	0.80	2.88	27.01	600	4.56	34.17	0.43	2.91	27.09	104	0.93
693	4.22	34.20	0.27	2.95	27.15	700	4.20	34.21	0.27	2.96	27.16	98	1.03
928	3.73	34.38	0.25	3.11	27.34	800	3.99	34.29	0.25	3.04	27.24	90	1.12
1411	2.81	34.51	0.48	2.96	27.53	1000	3.58	34.40	0.24	3.08	27.37	79	1.29
1708	2.31	34.56	0.96	2.94	27.62	1200	3.20	34.46	0.30	3.01	27.46	72	1.44
						1500	2.65	34.53	0.60	2.95	27.56	62	1.64

188-024

BROWN BEAR; February 27, 1958; 0500 GCT; 48°34'N, 127°57'W; sounding, 2523 m; wind, 260°, force 2; weather, partly cloudy; sea, slight; wire angle, 30°, 04°, 07°.

0a)	8.89	32.40	6.28	0.82	25.12	0	8.89	32.40	6.28	0.82	25.12	285	0.00
10	8.88	32.41	6.26	0.80	25.13	10	8.88	32.41	6.26	0.80	25.13	284	0.03
						20	8.90	32.39	6.28	0.84	25.11	286	0.06
20c)	8.90	32.39	6.28	0.84	25.11	30	8.89	32.42	6.27	0.80	25.14	284	0.09
30	8.89	32.42	6.27	0.80	25.14	50	8.92	32.43	6.28	0.78	25.14	284	0.14
50	8.92	32.43	6.28	0.78	25.14	75	8.61	32.89	5.19	1.19	25.55	246	0.21
75	8.61	32.89	5.19	1.19	25.55	100	8.09	33.50	3.57	1.79	26.10	193	0.26
100	8.09	33.50	3.57	1.79	26.10	150	7.74	33.84	2.16	2.32	26.42	164	0.35
124	7.92	33.73	2.62	2.18	26.31	200	7.46	33.88	1.83	2.40	26.49	158	0.43
149	7.74	33.84	2.17	2.32	26.42	250	7.14	33.90	1.86	2.36	26.55	153	0.51
						300	6.71	33.95	1.69	2.48	26.65	144	0.58
166b)	7.67	33.87	1.93	2.41	26.46	400	5.94	34.03	1.32	2.65	26.82	129	0.72
						500	5.26	34.11	0.83	2.74	26.96	116	0.84
174c)	7.60	33.78u	1.75	2.46	26.40	600	4.73	34.19	0.51	2.85	27.09	105	0.96
						700	4.37	34.25	0.38	3.00	27.17	97	1.06
245b)	7.18	33.90	1.88	2.35	26.55	800	4.10	34.30	0.30	3.11	27.24	91	1.15
396	5.97	34.03	1.34	2.65	26.81	1000	4.36	34.40	0.29	3.04	27.29	89	1.33
590	4.77	34.18	0.52	2.83	27.07	1200	4.11	34.46	0.37	2.99	27.37	83	1.50
813	4.07	34.31	0.29	3.12	27.25	1500	2.65	34.49	0.63	2.99	27.53	65	1.72
1261	3.92	34.47	0.41	2.98	27.39								
1530	2.43	34.49	0.67	2.99	27.55								

a) Second cast.
b) First cast.
c) Third cast.

UW 88-188

OBSERVED						INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ cl/ton	ΔD dyn m

188-025 BROWN BEAR; February 27, 1958; 1200 GCT; 49°01'N, 127°58'W; sounding, 2468 m; wind, 270°, force 1; weather, partly cloudy; sea, slight; wire angle, 10°, 05°.

0a)	8.32	32.36	6.31	0.92	25.18	0	8.32	32.36	6.31	0.92	25.18	280	0.00
10	8.32	32.34	6.34	0.91	25.16	10	8.32	32.34	6.34	0.91	25.16	281	0.03
20	8.33	32.34	6.33	0.90	25.16	20	8.33	32.34	6.33	0.90	25.16	282	0.06
30	8.33	32.36	6.33	0.96	25.18	30	8.33	32.36	6.33	0.96	25.18	280	0.08
50	8.36	32.32	6.34	0.91	25.14	50	8.36	32.32	6.34	0.91	25.14	284	0.14
75	7.56	32.57	6.03	1.12	25.45	75	7.56	32.57	6.03	1.12	25.45	255	0.21
100	6.60	33.15	5.23	1.43	26.04	100	6.60	33.15	5.23	1.43	26.04	199	0.26
123	6.72	33.49	4.35	1.80	26.29	150	6.78	33.70	3.69	1.92	26.45	161	0.35
146	6.75	33.66	3.83	1.91	26.42	200	6.32	33.93	2.46	2.31	26.69	139	0.43
169	6.79	33.86	-	2.01	26.57	250	5.76	33.96	2.14	2.42	26.78	130	0.50
						300	5.37	33.98	1.82	2.52	26.85	125	0.56
194b)	6.40	33.93	2.50	2.30	26.68	400	5.10	34.04	1.18	2.69	26.93	118	0.68
292	5.39	33.98	1.88	2.50	26.84	500	4.80	34.10	0.70	2.82	27.01	111	0.80
487	4.85	34.09	0.75	2.81	26.99	600	4.47	34.18	0.39	2.89	27.11	102	0.90
732	4.06	34.27	0.15	2.97	27.22	700	4.16	34.25	0.19	2.95	27.20	95	1.00
978	3.41	34.36	0.25	3.09	27.36	800	3.87	34.30	0.17	3.02	27.26	88	1.09
1470	2.48	34.49	0.54	2.95	27.55	1000	3.36	34.37	0.25	3.08	27.37	79	1.26
1766	2.10	34.58	1.01	2.92	27.65	1200	2.94	34.42	0.30	3.01	27.45	72	1.41
						1500	2.44	34.50	0.58	2.95	27.56	62	1.61

188-026 BROWN BEAR; February 27, 1958; 1900 GCT; 48°52'N, 127°16'W; sounding, 2057 m; wind, 320°, force 1; weather, partly cloudy; sea, smooth; wire angle, 13°, 03°.

0a)	9.14	32.39	6.23	0.73	25.08	0	9.14	32.39	6.23	0.73	25.08	289	0.00
10	9.11	32.34	6.20	0.70	25.04	10	9.11	32.34	6.20	0.70	25.04	293	0.03
20	9.11	32.36	6.22	0.70	25.06	20	9.11	32.36	6.22	0.70	25.06	292	0.06
30	9.10	32.38	6.15	0.67	25.08	30	9.10	32.38	6.15	0.67	25.08	290	0.09
50	9.17	32.38	6.16	0.67	25.06	50	9.17	32.38	6.16	0.67	25.06	291	0.14
75	8.81	32.57	5.85	0.80	25.27	75	8.81	32.57	5.85	0.80	25.27	272	0.22
100	8.02	33.22	4.84	1.30u	25.90	100	8.02	33.22	4.84		25.90	213	0.28
123	8.20	33.49	3.73	1.05u	26.08	150	7.98	33.70	2.81	1.98	26.28	178	0.37
146	8.03	33.69	2.87	1.95	26.26	200	7.44	33.94	2.29	2.17	26.54	153	0.46
170	7.75	33.78	2.55	2.09	26.37	250	7.13	34.00	1.97	2.29	26.63	145	0.53
						300	6.78	34.04	1.68	2.42	26.71	138	0.60
194b)	7.47	33.93	2.33	2.15	26.53	400	5.93	34.02	1.20	2.67	26.81	130	0.74
292	6.85	34.04	1.72	2.39	26.70	500	5.20	34.05	0.82	2.80	26.92	120	0.86
490	5.27	34.04	0.85	2.81	26.91	600	4.59	34.14	0.53	2.73	27.06	107	0.98
736	3.98	34.25	0.28	2.73	27.21	700	4.12	34.22	0.33	2.72	27.18	96	1.08
982	3.51	34.38	0.25	3.03	27.36	800	3.86	34.29	0.27	2.83	27.26	89	1.17
1476	2.55	34.34	0.18	2.94	27.42	1000	3.47	34.37	0.22	3.03	27.36	80	1.34
1773	2.17	34.52	1.02	2.87	27.60	1200	3.04	34.31	0.22	2.99	27.35	81	1.50
						1500	2.51	34.35	0.22	2.93	27.43	74	1.73

188-027 BROWN BEAR; February 28, 1958; 0100 GCT; 48°44'N, 126°34'W; sounding, 602 m; wind, 290°, force 1; weather, partly cloudy; sea, smooth; wire angle, 05°, 05°.

0a)	9.60	32.43	6.20	0.73	25.03	0	9.60	32.43	6.20	0.73	25.03	293	0.00
10	9.39	32.39	6.28	0.73	25.04	10	9.39	32.39	6.28	0.73	25.04	293	0.03
20	9.43	32.41	6.26	0.71	25.05	20	9.43	32.41	6.26	0.71	25.05	293	0.06
30	9.39	32.41	6.23	0.74	25.05	30	9.39	32.41	6.23	0.74	25.05	292	0.09
50	9.48	32.41	6.23	0.76	25.04	50	9.48	32.41	6.23	0.76	25.04	294	0.15
75	9.78	32.86	5.52	1.00	25.34	75	9.78	32.86	5.52	1.00	25.34	266	0.22
100	8.51	33.21	4.67	1.47	25.81	100	8.51	33.21	4.67	1.47	25.81	221	0.28
123	7.71	33.30	4.66	1.64	26.00	150	7.18	33.49	4.39	1.79	26.23	182	0.38
147	7.13	33.46	4.49	1.77	26.21	200	7.31		3.25	2.04			
173	7.38	33.64	3.75	1.91	26.32	250	7.12		2.33	2.28			
						300	6.87		1.63	2.48			
196b)	7.32	33.70	3.33	2.02	26.37	400	6.21		0.90	2.73			
295	6.90	34.02	1.69	2.46	26.68								
494	5.38	33.95u	1.01	2.81	26.82								

a) Second cast.
b) First cast.

OBSERVED					COMPUTED	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	μg at/L	g/L	m	°C	‰	ml/L	μg at/L	g/L	cl/ton	dyn m

188-028

BROWN BEAR; February 28, 1958; 0400 GCT; 48°39'N, 125°51'W; sounding, 71 m; wind, 320°, force 3; weather, partly cloudy; sea, smooth; wire angle, 05°.

0	10.18	29.23	6.46	0.72	22.45	0	10.18	29.23	6.46	0.72	22.45	540	0.00
10	10.10	32.03	6.19	0.85	24.64	10	10.10	32.03	6.19	0.85	24.64	331	0.04
20	10.04	32.36	6.14	0.85	24.91	20	10.04	32.36	6.14	0.85	24.91	306	0.08
30	10.09	32.47	5.97	0.88	24.99	30	10.09	32.47	5.97	0.88	24.99	299	0.11
50	10.16	32.56	5.95	0.90	25.04	50	10.16	32.56	5.95	0.90	25.04	294	0.16
60	10.29	32.59	5.99	0.84	25.05								

188-029

BROWN BEAR; February 28, 1958; 0900 GCT; 48°28'N, 125°07'W; sounding, 162 m; wind, calm; weather, missing; sea, smooth; wire angle, 10°.

0	10.03	28.04	6.45	0.78	21.55	0	10.03	28.04	6.45	0.78	21.55	626	0.00
10	10.63	32.59	6.07	0.83	24.99	10	10.63	32.59	6.07	0.83	24.99	298	0.05
20	10.58	32.74	6.00	0.84	25.11	20	10.58	32.74	6.00	0.84	25.11	286	0.08
30	10.56	32.79	6.04	0.81	25.15	30	10.56	32.79	6.04	0.81	25.15	283	0.10
50	10.56	32.86	6.06	0.83	25.21	50	10.56	32.86	6.06	0.83	25.21	278	0.16
75	-	32.85	-	0.81		75	10.53	32.85	6.10	0.81	25.21	279	0.23
100	10.41	32.85	6.00	0.83	25.23	100	10.41	32.85	6.00	0.83	25.23	277	0.30
130	10.16	32.99	5.68	1.00	25.38								

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	σ_t	Z	T	S	O_2	σ_t	δ	ΔD
m	°C	‰	ml/L	g/L	m	°C	‰	ml/L	g/L	cl/ton	dyn m

193-001

BROWN BEAR; April 16, 1958; 2100 GCT;[a] 48°09'N, 125°48'W; sounding, 1097 m; wind, 160°, force 4; weather, cloudy; sea, moderate; wire angle, 08°, 12°.

0b)	9.55	32.56	6.47	25.14	0	9.55	32.56	6.47	25.14	283	0.00
10	9.32	32.39	6.46	25.05	10	9.32	32.39	6.46	25.05	292	0.03
19	9.34	32.33	6.50	25.00	20	9.33	32.33	6.50	25.00	297	0.06
28	9.30	32.36	6.51	25.03	30	9.30	32.36	6.52	25.03	294	0.09
48	9.26	32.37	6.51	25.04	50	9.28	32.35	6.52	25.02	295	0.15
72	8.95	32.38	6.33	25.10	75	8.66	32.47	6.19	25.21	278	0.22
97	7.28	32.99	5.32	25.82	100	7.26	33.01	5.28	25.84	218	0.28
121	7.31	33.25	4.65	26.02	150	7.72	33.71	3.11	26.32	173	0.38
145	7.78	33.68	3.21	26.29	200	7.14	33.84	2.52	26.51	156	0.46
169	7.50	33.79	2.82	26.42	250	6.71	33.90	2.03	26.61	147	0.54
192	7.21	33.86	2.51	26.51	300	6.27	33.96	1.84	26.72	137	0.61
					400	5.28	33.98	1.53	26.86	125	0.74
195c)	7.19	33.83	2.68	26.49	500	4.85	34.06	0.89	26.97	115	0.86
245	6.74	33.89	2.06	26.60	600	4.43	34.17	0.49	27.10	103	0.97
293	6.37	33.96	1.84	26.71	700	4.08	34.24	0.30	27.20	94	1.07
391	5.32	33.98	1.60	26.85	800	3.77	34.33	0.30	27.30	85	1.16
487	4.91	34.04	0.96	26.95							
581	4.50	34.16	0.55	27.09							
676	-	34.21	0.32								
776	3.84	34.31	0.29	27.28							
974	3.35	34.40	0.53	27.40							

193-002

BROWN BEAR; April 17, 1958; 0400 GCT; 48°11'N, 125°54'W; sounding, 732 m; wind, 140°, force 7; weather, overcast, precipitation within sight; sea, moderate; wire angle, 12°.

88	8.88	32.85	5.35	25.48
99	8.05	32.88	5.47	25.63
112	8.20	33.33	4.39	25.96
118	8.24	33.43	4.42	26.03

a) Times reported are those of the messenger release of the shallow cast to the nearest hour (when half way between, to the nearest even hour). Wire angles are given in the numerical order of casts.
b) Third cast.
c) First cast.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; July 2, 1958; 0900 GCT;[a] 48°42'N, 127°43'W; sounding, 2542 m; wind, 340°, force 4; weather, partly cloudy; sea, smooth.																
0b)	14.88	31.97	5.94	0.33	0	8.07	2.20	23.69	0	14.88	31.97	5.94	0.33	23.69	422	0.00
10	14.88	31.96	6.00	0.56	0	8.05	2.14	23.68	10	14.88	31.96	6.00	0.56	23.68	423	0.04
20	12.59	32.04	6.36	0.61	0	8.03	2.17	24.20	20	12.59	32.04	6.36	0.61	24.20	373	0.08
30	10.14	32.23	6.21	0.87	0	8.00	2.19	24.79	30	10.14	32.23	6.21	0.87	24.79	317	0.12
50	-	32.46	6.37	1.09	3	8.04	2.19		50	9.35	32.46	6.37	1.09	25.10	288	0.18
75	8.36	32.76	5.29	1.42	12	7.96	2.23	25.49	75	8.36	32.76	5.29	1.42	25.49	252	0.24
101	7.57	33.14	4.85	1.87	22	7.87	2.24	25.90	100	7.59	33.13	4.87	1.86	25.89	214	0.30
126	7.18	33.41	4.32	1.87	26	7.82	2.26	26.16	150	7.00	33.60	3.86	2.17	26.34	172	0.40
151	7.00	33.61	3.84	2.18	29	7.78	2.28	26.35	200	6.75	33.90	2.70	2.25	26.61	147	0.48
176	6.94	33.81	-	2.29	39	7.70	2.28	26.51	250	6.34	33.98	2.22	2.70	26.73	136	0.55
202	6.73	33.91	2.67	2.26	39	7.70	2.30	26.62	300	5.65	34.00	1.84	2.57	26.83	127	0.62
									400	5.01	34.06		2.89	26.95	116	0.74
244c)	6.31	33.98	2.20	2.65	44	-	2.33	26.73	500	4.60	34.13		2.74	27.05	107	0.85
									600	4.30	34.21		3.09	27.15	98	0.95
252b)	6.16	33.97	2.27	2.79	-	7.60	-	26.74	700	4.01	34.28		3.29	27.23	91	1.04
									800	3.81	34.33		3.30	27.29	86	1.13
291c)	5.72	33.99	1.87	2.50	68	7.57	2.35	26.81	1000	3.41	34.42		3.39	27.41	76	1.29
388	5.07	34.05	1.41	2.96	78	7.48	2.35	26.94	1200	2.99	34.47		3.43	27.49	69	1.44
485	4.64	34.12	0.72	2.69	90	7.50	2.35	27.04								
582	4.36	34.20	-	3.02	94	7.50	2.39	27.13								
678	4.06	34.27	-	3.29	104	7.43	2.39	27.22								
776	3.86	34.32	-	3.29	129	7.47	2.42	27.28								
970	3.47	34.41	-	3.36	132	7.40	2.42	27.39								
1167	3.06	34.46	-	3.44	135	7.40	2.42	27.47								
1462	2.50	34.53	0.77	3.15	159	7.47	2.44	27.58								

a) Times reported are those of the messenger release to the nearest hour (when half way between, to the nearest even hour). When casts were not taken in order of increasing depth, footnotes are included.

b) Third cast; wire angle, 07°.

c) Second cast; wire angle, 14°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; July 3, 1958; 1000 GCT; 48°50'N, 130°19'W; sounding, 2670 m; wind, 320°, force 4; weather, cloudy; sea, slight.																
0a)	15.11	32.46	5.93	0.72				24.01	0	15.11	32.46	5.93	0.72	24.01	391	0.00
10	15.10	32.49	6.00	0.65				24.04	10	15.10	32.49	6.00	0.65	24.04	388	0.04
20	14.48	32.50	6.13	0.91				24.18	20	14.48	32.50	6.13	0.91	24.18	375	0.08
30	13.73	32.48	5.39	0.75				24.32	30	13.73	32.48	5.39	0.75	24.32	362	0.11
50	10.02	32.46	6.53	1.14				24.99	50	10.02	32.46	6.53	1.14	24.99	299	0.18
75	8.77	32.48	6.29	1.23				25.20	75	8.77	32.48	6.29	1.23	25.20	278	0.25
100	7.30	32.92	5.62	1.86				25.76	100	7.30	32.92	5.62	1.86	25.76	226	0.32
125	6.90	33.32	5.06	2.08				26.13	150	7.07	33.65	3.96	2.46	26.37	169	0.41
150	7.07	33.65	3.96	2.46				26.37	200	6.81	33.91	2.87	2.47	26.61	147	0.49
175	7.02	33.84	3.32	2.46				26.52	250	6.42	33.97	2.27	2.66	26.71	138	0.56
200	6.81	33.91	2.87	2.47				26.61	300	6.03	34.00	2.20	2.55	26.78	131	0.63
									400	5.30	34.05	1.27	2.80	26.91	120	0.76
241b)	6.54	33.98	2.28	2.53				26.70	500	4.63	34.09	0.93	2.84	27.02	110	0.87
									600	4.35	34.17	0.54	3.00	27.11	102	0.98
250a)	6.38	33.96	2.22	2.84				26.70	700	4.06	34.25	0.38	3.03	27.21	93	1.08
									800	3.82	34.30	0.31	3.18	27.27	88	1.17
290b)	6.09	33.99	2.35	2.50				26.77	1000	3.40	34.38	0.30	3.10	27.38	79	1.33
386	5.44	34.05	1.30	2.83				26.89	1200	3.02	34.46	0.38	2.99	27.47	70	1.48
482	4.67	34.08	1.03	2.76				27.01								
579	4.42	34.15	0.58	3.04				27.09								
675	4.12	34.23	0.41	2.96				27.18								
772	3.88	34.29	0.32	3.18				27.26								
965	3.47	34.36	0.29	3.14				27.35								
1157	3.10	34.45	0.36	3.00				27.46								
1446	2.58	34.51	0.58	3.09				27.55								

a) Second cast; wire angle, missing.
b) First cast; wire angle, 15°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; July 4, 1958; 1100 GCT; 48°59'N, 132°56'W; sounding, 3182 m; wind, 290°, force 2; weather, partly cloudy; sea, smooth.																
0a)	15.10	32.48	6.16	1.22	0	8.05	2.20	24.03	0	15.10	32.48	6.16	1.22	24.03	389	0.00
									10	14.25	32.51	6.17	0.86	24.23	370	0.04
13b)	13.87	32.51	6.27	0.80	0	8.10	2.24	24.31	20	12.68	32.48	6.71	0.75	24.53	342	0.07
23	12.21	32.48	6.89	0.78	0	8.11	2.23	24.62	30	11.20	32.49	7.33	1.04	24.81	316	0.11
33	10.78	32.50	7.44	1.12	0	8.09	2.24	24.89	50	8.52	32.53	6.96	1.27	25.28	271	0.17
53	8.24	32.54	6.89	1.29	10	8.02	2.24	25.33	75	7.44	32.57	6.59	1.31	25.47	253	0.23
78	7.34	32.59	6.55	1.33	15	7.98	2.25	25.50	100	6.63	32.81	6.21	1.65	25.77	225	0.29
103	6.54	32.86	6.13	1.68	18	7.92	2.26	25.82	150	5.56	33.52	4.98	1.98	26.46	160	0.39
128	5.84	33.38	5.21	1.89	30	7.82	2.26	26.32	200	5.23	33.84	4.07	2.08	26.75	132	0.46
152	5.54	33.53	4.95	1.99	40	7.75	2.25	26.47	250	4.92	33.89	3.06	2.65	26.83	126	0.52
177	5.39	33.70	4.48	2.13	44	7.72	2.28	26.62	300	4.56	33.93	2.33	2.75	26.90	119	0.59
202	5.22	33.85	4.03	2.08	49	7.68	2.31	26.76	400	4.22	34.01	1.42	2.95	27.00	110	0.70
									500	4.02	34.12	0.73	3.03	27.11	101	0.81
249c)	5.00	33.88	3.18	2.63	58	7.67	2.30	26.81	600	3.72	34.18	0.53	3.29	27.18	94	0.90
									700	3.59	34.30	0.22	3.18	27.29	84	0.99
252b)	4.84	33.90	2.93	2.67	-	7.58	2.31	26.84	800	3.33	34.33	0.37	3.14	27.34	80	1.08
									1000	2.98	34.40	0.69	3.75	27.43	72	1.23
299c)	4.56	33.93	2.34	2.75	70	7.54	2.31	26.90	1200	2.69	34.47	0.52	3.34	27.51	65	1.37
399	4.22	34.01	1.43	2.95	86	7.45	2.34	27.00								
498	4.03	34.12	0.73	3.02	98	7.42	2.37	27.11								
598	3.72	34.18	0.54	3.29	112	7.37	2.45	27.18								
698	3.60	34.30	0.22	3.18	120	7.45	2.39	27.29								
797	3.34	34.33	0.36	3.12	126	7.33	2.39	27.34								
997	2.98	34.40	0.69	3.76	142	7.42	2.40	27.43								
1196	2.70	34.47	0.52	3.35	154	7.41	2.43	27.51								
1496	2.34	34.52	0.74	3.14	159	7.40	2.42	27.58								

a) Third cast; wire angle, missing.
b) Second cast; wire angle, 04°.
c) First cast; wire angle, 04°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	SiO_3-Si µg at/L	pH	Alk. meq/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ cl/ton	ΔD dyn m
BROWN BEAR; July 5, 1958; 1700 GCT; 49°11'N, 135°34'W; sounding, 3804 m; wind, 330°, force 2; weather, cloudy, precipitation within sight; sea, smooth.																
0a)	15.68	32.51	6.13	0.71	6			23.93	0	15.68	32.51	6.13	0.71	23.93	399	0.00
10	15.42	32.51	6.29	0.78	0			23.98	10	15.42	32.51	6.29	0.78	23.98	394	0.04
20	14.16	32.51	6.46	0.73	0			24.25	20	14.16	32.51	6.46	0.73	24.25	368	0.08
30	12.48	32.52	6.98	0.78	0			24.60	30	12.48	32.52	6.98	0.78	24.60	336	0.11
50	9.85	32.56	7.43	1.00	0			25.10	50	9.85	32.56	7.43	1.00	25.10	288	0.18
75	7.92	32.58	7.03	1.14	5			25.41	75	7.92	32.58	7.03	1.14	25.41	259	0.24
100	7.26	32.66	6.68	1.32	9			25.56	100	7.26	32.66	6.68	1.32	25.56	244	0.31
125	6.30	33.03	5.97	1.32	23			25.98	150	5.68	33.42	5.45	2.01	26.37	168	0.41
150	5.68	33.42	5.45	2.01	36			26.37	200	5.39	33.82	3.95	2.24	26.72	136	0.48
175	5.46	33.72	4.56	2.10	40			26.63	250	5.02	33.92	2.64	2.66	26.84	125	0.55
200	5.39	33.82	3.95	2.24	46			26.72	300	4.60	33.93	1.47	2.83	26.89	120	0.61
									400	4.38	34.04	1.19	3.12	27.01	110	0.73
249b)	5.00	33.92	2.58	2.59	59			26.84	500	4.11	34.12	0.77	3.31	27.10	102	0.83
									600	3.72	34.19	0.63	3.30	27.19	93	0.93
250a)	5.03	33.91	2.71	2.74	61			26.83	700	3.49	34.25	0.55	3.26	27.26	87	1.02
									800	3.31	34.30	0.58	3.54	27.32	82	1.10
299b)	4.60	33.93	1.47	2.83	73			26.89	1000	2.98	34.39	0.34	3.33	27.42	73	1.26
398	4.38	34.04	1.20	3.11	89			27.01	1200	2.69	34.45	0.69	3.33	27.50	67	1.40
495	4.14	34.12	0.78	3.30	98			27.09								
591	3.74	34.18	0.65	3.33	112			27.18								
688	3.51	34.24	0.53	3.20	124			27.25								
786	3.34	34.29	0.63	3.56	128			27.31								
984	3.00	34.38	0.30	3.33	139			27.41								
1184	2.71	34.45	0.67	3.33	150			27.49								
1484	2.33	34.51	0.71	3.33	145			27.57								

a) Second cast; wire angle, 00°.
b) First cast; wire angle, 08°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; July 6, 1958; 1200 GCT; 49°16'N, 138°08'W; sounding, 3932 m; wind, 320°, force 4; weather, cloudy; sea, moderate.																
0a)	14.80	32.70	6.15	0.87	6	8.01	2.18	24.26	0	14.80	32.70	6.15	0.87	24.26	367	0.00
10	14.76	32.71	6.19	1.66	0	8.00	2.18	24.28	10	14.76	32.71	6.19	1.66	24.28	365	0.04
20	12.23	32.73	6.81	0.94	0	7.95	2.18	24.81	20	12.23	32.73	6.81	0.94	24.81	316	0.07
30	9.72	32.75	7.53	1.13	0	7.98	2.16	25.26	30	9.72	32.75	7.53	1.13	25.26	272	0.10
49	8.08	32.74	7.15	1.32	0	7.96	2.17	25.51	50	8.03	32.74	7.13	1.34	25.52	248	0.15
74	7.10	32.76	6.74	1.66	5	7.90	2.17	25.66	75	7.08	32.76	6.74	1.65	25.67	234	0.21
99	6.68	32.89	6.51	1.71	9	7.82	2.17	25.82	100	6.66	32.91	6.47	1.75	25.84	218	0.27
124	6.19	33.35	5.72	2.30	23	7.78	2.23	26.25	150	5.70	33.57	5.58	2.10	26.48	158	0.36
149	5.73	33.56	5.60	2.09	36	7.75	2.20	26.47	200	5.09	33.74	4.73	2.41	26.69	138	0.44
173	5.20	33.68	5.20	2.34	40	7.71	2.25	26.63	250	4.75	33.84	3.72	2.55	26.81	128	0.50
198	5.10	33.74	4.77	2.41	46	7.70	2.26	26.69	300	4.43	33.91	2.66	2.78	26.90	119	0.56
									400	4.12	34.03	1.42	2.88	27.02	108	0.68
245b)	4.80	33.84	3.77	2.72	59	7.60	2.28	26.80	500	3.86	34.11	0.91	3.22	27.12	100	0.78
									600	3.64	34.20	0.69	3.22	27.21	92	0.88
248a)	4.77	33.83	3.86	2.21	-	7.58	2.29	26.80	700	3.44	34.25	0.62	3.23	27.27	86	0.97
									800	3.25	34.31	0.52	3.30	27.33	81	1.05
294b)	4.45	33.90	2.76	2.79	73	7.43	2.28	26.89	1000	2.90	34.40	0.50	3.36	27.44	72	1.20
392	4.14	34.02	1.47	2.83	89	7.35	2.28	27.01	1200	2.61	34.44	0.54	3.34	27.49	67	1.34
490	3.88	34.10	0.95	3.22	98	7.28	2.33	27.11								
588	3.67	34.19	0.69	3.22	112	7.34	2.35	27.20								
684	3.47	34.24	0.64	3.22	124	7.30	2.37	27.26								
782	3.28	34.30	0.53	3.29	128	7.25	2.38	27.32								
972	2.96	34.39	0.50	3.36	139	7.32	2.39	27.42								
1157	2.66	34.43	0.53	3.35	150	7.35	2.40	27.48								
1436	2.49	34.47	0.62	3.21	145	7.38	2.41	27.53								

a) Second cast; wire angle, 08°.
b) First cast; wire angle, 13°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; July 7, 1958; 1800 GCT; 49°25'N, 140°52'W; sounding, 3968 m; wind, 240°, force 4; weather, cloudy; sea, slight.																
0a)	14.60	32.68	6.16	0.92	9			24.29	0	14.60	32.68	6.16	0.92	24.29	364	0.00
10	13.74	32.68	6.10	0.82	0			24.47	10	13.74	32.68	6.10	0.82	24.47	347	0.04
20	12.92	32.69	6.23	1.03	0			24.64	20	12.92	32.69	6.23	1.03	24.64	331	0.07
30	8.94	32.71	7.63	1.22	0			25.36	30	8.94	32.71	7.63	1.22	25.36	263	0.10
50	7.68	32.76	6.96	1.28	9			25.58	50	7.68	32.76	6.96	1.28	25.58	242	0.15
75	7.01	32.77	6.73	1.75	9			25.68	75	7.01	32.77	6.73	1.75	25.68	233	0.21
100	6.32	32.94	6.38	1.84	19			25.91	100	6.32	32.94	6.38	1.84	25.91	212	0.26
125	5.54	33.45	5.67	2.11	34			26.41	150	5.12	33.62	5.10	2.23	26.59	147	0.36
150	5.12	33.62	5.10	2.23	42			26.59	200	4.76	33.78	4.19	2.19	26.76	132	0.42
174	4.96	33.74	4.58	2.17	54			26.70	250	4.59	33.85	3.46	2.37	26.83	125	0.49
199	4.76	33.78	4.21	2.19	60			26.76	300	4.38	33.92	2.85	2.52	26.91	118	0.55
									400	4.14	34.04	1.59	2.71	27.03	107	0.66
249b)	4.64	33.85	3.58	2.29	-			26.83	500	3.88	34.13	0.99	2.86	27.13	99	0.77
									600	3.65	34.19	0.73	3.06	27.20	92	0.86
249a)	4.55	33.85	3.36	2.45	70			26.84	700	3.44	34.25	0.54	3.02	27.27	86	0.95
									800	3.23	34.32	0.49	3.07	27.34	80	1.04
299b)	4.38	33.92	2.87	2.52	70			26.91	1000	2.91	34.39	0.45	3.12	27.43	72	1.19
399	4.14	34.04	1.60	2.71	88			27.03	1200	2.63	34.45	0.46	2.98	27.50	66	1.33
498	3.88	34.13	1.00	2.85	106			27.13								
598	3.65	34.19	0.74	3.06	117			27.20								
698	3.44	34.25	0.54	3.02	119			27.27								
797	3.24	34.32	0.49	3.07	133			27.34								
996	2.92	34.39	0.45	3.13	150			27.43								
1196	2.64	34.45	0.46	2.98	165			27.50								
1488	2.31	34.52	0.81	3.15	161			27.58								

a) Second cast; wire angle, 03°.
b) First cast; wire angle, 04°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; July 8, 1958; 1500 GCT; 49°41'N, 143°32'W; sounding, 4096 m; wind, 240°, force 4; weather, drizzle; sea, slight.																
0a)	13.35	32.76	6.03	1.27	27	7.97	2.16	24.61	0	13.35	32.76	6.03	1.27	24.61	334	0.00
10	13.36	32.76	6.19	1.41	17	7.98	2.18	24.61	10	13.36	32.76	6.19	1.41	24.61	334	0.03
20	12.40	32.78	6.34	0.94	19	8.00	2.18	24.81	20	12.40	32.78	6.34	0.94	24.81	315	0.06
30	10.06	32.82	6.70	1.34	19	7.99	2.18	25.26	30	10.06	32.82	6.70	1.34	25.26	272	0.09
50	7.06	32.84	7.06	1.44	17	7.97	2.19	25.73	50	7.06	32.84	7.06	1.44	25.73	228	0.14
75	6.49	32.85	6.71	1.62	21	7.95	2.20	25.82	75	6.49	32.85	6.71	1.62	25.82	220	0.20
100	6.06	32.91	6.41	1.64	21	7.91	2.20	25.92	100	6.06	32.91	6.41	1.64	25.92	211	0.25
125	5.64	33.48	5.41	1.94	33	7.81	2.25	26.42	150	4.94	33.64	4.88	2.24	26.63	144	0.34
150	4.94	33.64	4.88	2.24	49	7.73	2.26	26.63	200	4.17	33.75	4.08	2.67	26.80	128	0.41
175	4.48	33.72	4.47	2.36	48	7.69	2.28	26.74	250	3.74	33.82	2.72	2.82	26.90	118	0.47
200	4.17	33.75	4.08	2.67	55	7.63	-	26.80	300	3.69	33.90	1.94	3.07	26.97	112	0.53
									400	3.75	34.04	1.19	3.19	27.07	103	0.64
244b)	3.75	33.82	2.82	2.78	-	7.50	2.30	26.90	500	3.69	34.15	0.94	3.28	27.16	95	0.74
									600	3.50	34.22	0.79	3.43	27.24	89	0.83
250a)	3.75	33.82	2.75	2.81	75	7.47	2.30	26.90	700	3.33	34.28	0.68	3.30	27.30	83	0.92
									800	3.15	34.33	0.53	3.48	27.36	78	1.00
292b)	3.68	33.89	2.03	3.05	88	7.47	2.33	26.96	1000	2.81	34.41	0.48	3.47	27.45	70	1.14
390	3.74	34.03	1.22	3.20	98	7.42	2.35	27.06	1200	2.56	34.47	0.53	3.39	27.52	64	1.28
488	3.72	34.14	0.97	3.22	115	7.38	2.37	27.15								
586	3.52	34.21	0.80	3.49	126	7.37	2.37	27.23								
684	3.36	34.27	0.72	3.25	123	7.39	2.40	27.29								
782	3.19	34.32	0.54	3.48	123	7.39	2.40	27.35								
978	2.84	34.40	0.47	3.48	129	7.41	2.41	27.44								
1167	2.60	34.46	0.52	3.40	159	7.40	2.43	27.51								
1475	2.32	34.51	0.60	3.40	174	7.46	2.44	27.58								

a) Second cast; wire angle, 03°.
b) First cast; wire angle, 13°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; July 9, 1958; 2200 GCT; 49°48'N, 145°55'W; sounding, 4272 m; wind, 210°, force 5; weather, drizzle; sea, rough.																
0a)	11.82	32.74	6.45	1.06	-	7.97	-	24.89	0	11.82	32.74	6.45	1.06	24.89	307	0.00
10	11.78	32.73	6.60	1.23	36	7.98	2.19	24.89	10	11.78	32.73	6.60	1.23	24.89	307	0.03
20	11.48	32.74	6.54	1.13	42	7.90	2.20	24.95	20	11.48	32.74	6.54	1.13	24.95	302	0.06
30	10.16	32.82	6.83	1.38	27	7.95	2.26	25.25	30	10.16	32.82	6.83	1.38	25.25	274	0.09
50	7.08	32.94	7.27	1.22	-	-	-	25.81	50	7.08	32.94	7.27	1.22	25.81	220	0.14
74	6.48	32.98	6.75	1.41	32	7.78	2.22	25.92	75	6.46	32.98	6.75	1.41	25.92	210	0.19
99	6.09	33.00	6.65	1.46	29	7.86	2.19	25.99	100	6.09	33.01	6.65	1.45	25.99	203	0.24
124	5.86	33.24	6.26	1.51	35	7.90	2.23	26.20	150	5.21	33.68	5.07	1.95	26.63	144	0.33
149	5.24	33.68	5.09	1.94	46	7.78	2.26	26.62	200	4.29	33.78	4.17	2.36	26.81	127	0.40
173	4.60	33.74	4.69	2.14	52	7.55	2.27	26.74	250	3.92	33.82	3.20	2.63	26.88	120	0.46
198	4.28	33.76	4.24	2.38	60	7.55	2.28	26.79	300	3.74	33.89	2.40	3.14	26.95	114	0.52
									400	3.71	34.03	1.45	3.07	27.07	104	0.63
208b)	4.25	33.79	3.90	2.39	-	7.55	2.28	26.82	500	3.71	34.13	0.99	3.08	27.15	97	0.73
									600	3.54	34.21	0.80	3.01	27.23	90	0.82
248a)	3.92	33.82	3.20	2.74	71	7.62	2.30	26.88	700	3.35	34.27	0.60	3.11	27.29	84	0.91
									800	3.17	34.32	0.36	3.12	27.35	79	0.99
250b)	3.92	33.82	3.20	2.49	-	-	-	26.88	1000	2.91	34.38	0.48	3.09	27.42	73	1.14
331	3.68	33.93	2.01	3.29	70	7.52	2.30	26.99	1200	2.66	34.44	0.58	3.43	27.49	67	1.28
412	3.71	34.04	1.37	3.05	86	7.50	2.35	27.07	1500	2.28	34.51	0.60	2.77	27.58	59	1.47
495	3.72	34.13	1.01	3.10	105	7.34	2.37	27.14	2000	1.93	34.60	1.22	3.26	27.68	51	1.75
577	3.58	34.19	0.81	2.97	109	7.35	2.35	27.21	2500	1.73	34.64	1.92	2.88	27.73	47	1.99
663	3.43	34.25	0.73	3.10	112	7.35	2.38	27.27	3000	1.58	34.67	2.51	2.74	27.76	44	2.22
839	3.11	34.34	0.32	3.12	122	7.38	2.39	27.37	4000	1.52	34.70	3.13	2.77	27.79	44	2.67
1026	2.88	34.39	0.50	3.10	132	7.40	2.40	27.43								
1319	2.51	34.47	0.60	3.33	146	7.33	2.41	27.53								
1487c)	2.29	34.51	0.59	2.74	150	7.34	2.42	27.58								
1971	1.94	34.60	1.17	3.29	172	7.48	2.45	27.68								
2465	1.74	34.64	1.88	2.89	186	7.48	2.46	27.73								
2958	1.59	34.67	2.45	2.75	175	7.51	2.45	27.76								
3454	1.53	34.68	3.00	2.71	162	7.60	2.45	27.77								
3950	1.52	34.70	3.09	2.75	163	7.59	2.46	27.79								
4119	1.53	34.70	3.24	2.82	166	7.57	2.45	27.79								

a) Third cast; wire angle, 12°.
b) Second cast; wire angle, 25°.
c) First cast; wire angle, 28°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; July 11, 1958; 0100 GCT; 47°54'N, 146°22'W; sounding, 4480 m; wind, 290°, force 3; weather, overcast; sea, moderate.																
0a)	13.08	32.84	6.12	0.69	29			24.73	0	13.08	32.84	6.12	0.69	24.73	323	0.00
10	12.94	32.84	6.24	0.89	19			24.75	10	12.94	32.84	6.24	0.89	24.75	320	0.03
20	12.02	32.84	6.33	0.86	12			24.93	20	12.02	32.84	6.33	0.86	24.93	304	0.06
30	9.49	32.85	6.83	0.99	10			25.38	30	9.49	32.85	6.83	0.99	25.38	361	0.09
50	7.44	32.90	6.74	1.07	12			25.73	50	7.44	32.90	6.74	1.07	25.73	228	0.14
75	6.72	32.94	6.50	1.19	17			25.86	75	6.72	32.94	6.50	1.19	25.86	216	0.20
100	6.40	32.99	6.60	1.39	27			25.94	100	6.40	32.99	6.60	1.39	25.94	209	0.25
125	6.05	33.07	6.50	1.32	22			26.05	150	5.88	33.63	5.24	1.69	26.51	155	0.34
150	5.88	33.63	5.24	1.69	34			26.51	200	4.98	33.79	4.41	1.96	26.74	133	0.41
175	5.41	33.74	4.96	1.86	37			26.65	250	4.52	33.84	3.54	2.36	26.83	125	0.48
200	4.98	33.79	4.41	1.96	46			26.74	300	4.26	33.89	2.64	2.67	26.90	119	0.54
									400	4.06	34.03	1.52	2.96	27.03	107	0.65
249b)	4.53	33.84	3.58	2.36	53			26.83	500	3.88	34.13	0.98	3.02	27.13	99	0.75
									600	3.63	34.20	0.76	3.09	27.21	92	0.85
250a)	4.52	33.84	3.51	2.36	60			26.83	700	3.39	34.27	0.65	3.12	27.29	84	0.94
									800	3.21	34.32	0.63	3.32	27.35	80	1.02
299b)	4.26	33.89	2.65	2.67	73			26.90	1000	2.89	34.41	0.48	3.13	27.45	71	1.17
398	4.06	34.03	1.53	2.96	90			27.03	1200	2.60	34.46	0.47	2.56	27.51	65	1.30
498	3.88	34.13	0.99	3.02	110			27.13								
597	3.64	34.20	0.77	3.09	115			27.21								
697	3.40	34.27	0.65	3.11	121			27.29								
796	3.22	34.32	0.63	3.32	115			27.34								
996	2.90	34.41	0.48	3.15	163			27.45								
1195	2.61	34.46	0.47	2.57	158			27.51								
1494	2.31	34.52	0.59	3.06	170			27.58								

a) Second cast; wire angle, 06°.
b) First cast; wire angle, 04°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; July 12, 1958; 0400 GCT; 46°04'N, 146°26'W; sounding, 4526 m; wind, calm; weather, overcast; sea, calm.																
0a)	14.57	32.95	5.94	0.96	48	7.96	2.21	24.51	0	14.57	32.95	5.94	0.96	24.51	344	0.00
10	13.60	32.94	6.23	0.67	32	7.97	2.21	24.70	10	13.60	32.94	6.23	0.67	24.70	326	0.03
20	11.80	32.91	6.72	0.82	16	7.98	2.18	25.03	20	11.80	32.91	6.72	0.82	25.03	295	0.06
30	10.99	32.92	6.72	0.77	30	7.97	2.20	25.18	30	10.99	32.92	6.72	0.77	25.18	280	0.09
50	7.66	32.94	6.91	0.94	39	7.90	2.20	25.73	50	7.66	32.94	6.91	0.94	25.73	228	0.14
75	7.00	32.96	6.63	1.16	17	7.87	2.20	25.84	75	7.00	32.96	6.63	1.16	25.84	218	0.20
100	6.51	32.96	6.55	1.26	25	7.86	2.20	25.90	100	6.51	32.96	6.55	1.26	25.90	212	0.25
125	7.02	33.49	5.68	1.63	26	7.81	2.24	26.25	150	6.82	33.80	5.12	1.55	26.52	154	0.35
150	6.82	33.80	5.12	1.55	32	7.76	2.24	26.52	200	5.74	33.85	4.77	1.76	26.70	138	0.42
175	6.28	33.87	4.92	1.74	55	7.73	2.29	26.65	250	4.99	33.84	4.14	2.04	26.78	130	0.49
200	5.74	33.85	4.77	1.76	44	7.70	2.29	26.70	300	4.68	33.89	3.32	2.36	26.85	124	0.55
									400	4.30	34.00	1.95	2.75	26.98	112	0.67
250b)	5.06	33.84	4.21	1.89	69	7.63	2.31	26.77	500	4.02	34.10	1.33	2.95	27.09	102	0.77
									600	3.79	34.18	0.95	2.95	27.18	95	0.87
250a)	4.92	33.83	4.08	2.18	-	7.60	2.30	26.78	700	3.52	34.24	0.78	3.13	27.25	88	0.96
									800	3.32	34.31	0.63	3.25	27.33	82	1.05
300b)	4.68	33.89	3.32	2.36	95	7.52	2.30	26.85	1000	2.97	34.38	0.49	3.32	27.42	74	1.20
399	4.30	34.00	1.96	2.75	105	7.43	2.32	26.98	1200	2.66	34.45	0.48	3.18	27.50	66	1.34
499	4.02	34.10	1.34	2.95	139	7.40	2.35	27.09								
598	3.80	34.18	0.95	2.95	140	7.40	-	27.18								
698	3.52	34.24	0.78	3.13	150	7.40	2.39	27.25								
798	3.32	34.31	0.63	3.25	135	7.36	2.38	27.33								
997	2.98	34.38	0.49	3.32	166	7.38	2.41	27.41								
1196	2.67	34.45	0.48	3.18	162	7.40	2.41	27.50								
1496	2.32	34.52	0.64	3.32	204	7.41	2.42	27.58								

a) Second cast; wire angle, 00°.
b) First cast; wire angle, 05°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; July 12, 1958; 2000 GCT; 45°11'N, 146°26'W; sounding, 4810 m; wind, 090°, force 2; weather, cloudy; sea, smooth.																
0a)	15.52	33.03	5.36	0.55				24.36	0	15.52	33.03	5.36	0.55	24.36	358	0.00
10	14.48	33.03	5.96	0.60				24.59	10	14.48	33.03	5.96	0.60	24.59	336	0.04
20	13.08	33.01	6.24	0.58				24.86	20	13.08	33.01	6.24	0.58	24.86	311	0.07
30	11.87	33.04	6.53	0.61				25.11	30	11.87	33.04	6.53	0.61	25.11	287	0.10
50	8.60	33.11	6.57	0.96				25.72	50	8.60	33.11	6.57	0.96	25.72	229	0.15
75	7.81	33.15	6.31	1.15				25.87	75	7.81	33.15	6.31	1.15	25.87	215	0.20
100	7.34	33.15	6.27	1.21				25.94	100	7.34	33.15	6.27	1.21	25.94	209	0.26
125	7.37	33.21	6.19	1.15				25.98	150	7.84	33.85	5.02	1.52	26.42	165	0.35
150	7.84	33.85	5.02	1.52				26.42	200	6.96	33.90	4.77	1.64	26.58	150	0.43
175	7.39	33.89	4.89	1.67				26.51	250	6.16	33.90	4.37	2.10	26.69	140	0.50
200	6.96	33.90	4.77	1.64				26.58	300	5.70	33.92	3.86	2.09	26.76	133	0.57
									400	4.70	33.96	2.49	2.73	26.91	120	0.70
250b)	6.22	33.90	4.47	2.06				26.68	500	4.17	34.05	1.64	2.79	27.04	108	0.81
									600	3.94	34.15	1.02	3.18	27.14	99	0.91
250a)	6.10	33.91	4.27	2.13				26.70	700	3.64	34.22	0.71	3.17	27.22	91	1.01
									800	3.42	34.28	0.60	3.12	27.29	85	1.10
300b)	5.70	33.92	3.86	2.09				26.76	1000	3.02	34.37	0.54	3.12	27.40	75	1.26
400	4.70	33.96	2.49	2.73				26.91	1200	2.70	34.43	0.49	3.16	27.48	68	1.40
500	4.17	34.05	1.64	2.79				27.04	1500	2.34	34.51	0.57	3.16	27.57	60	1.59
600	3.94	34.15	1.02	3.18				27.14								
700	3.64	34.22	0.71	3.17				27.22								
800	3.42	34.28	0.60	3.12				27.29								
1000	3.02	34.37	0.54	3.12				27.40								
1200	2.70	34.43	0.49	3.16				27.48								
1500	2.34	34.51	0.57	3.16				27.57								

a) Second cast; wire angle, missing.
b) First cast; wire angle, 02°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; July 13, 1958; 1000 GCT; 44°00'N, 146°40'W; sounding, 4919 m; wind, 050°, force 4; weather, overcast; sea, smooth.																
0a)	16.73	33.14	5.68	0.36	0	7.93	2.20	24.17	0	16.73	33.14	5.68	0.36	24.17	376	0.00
10	16.10	33.11	5.86	0.37	0	7.98	2.22	24.29	10	16.10	33.11	5.86	0.37	24.29	364	0.04
20	14.35	33.12	5.89	0.39	0	7.95	2.20	24.68	20	14.35	33.12	5.89	0.39	24.68	327	0.07
30	12.01	33.09	7.01	0.59	0	8.10	2.20	25.13	30	12.01	33.09	7.01	0.59	25.13	285	0.10
50	8.86	33.13	6.70	0.90	0	7.88	2.22	25.70	50	8.86	33.13	6.70	0.90	25.70	231	0.16
75	8.11	33.16	6.32	1.03	0	7.85	2.22	25.84	75	8.11	33.16	6.32	1.03	25.84	218	0.21
100	7.87	33.17	6.18	1.14	0	7.84	2.20	25.88	100	7.87	33.17	6.18	1.14	25.88	215	0.26
125	7.50	33.18	6.14	1.12	2	7.82	2.23	25.94	150	8.22	33.86	5.05	1.48	26.37	169	0.36
149	8.24	33.86	5.06	1.48	17	7.80	2.25	26.36	200	7.41	33.93	4.79	1.64	26.54	153	0.44
173	7.78	33.93	4.86	1.55	20	7.76	2.26	26.49	250	6.41	33.91	4.72	1.37	26.66	142	0.52
198	7.40	33.93	4.83	1.57	23	7.75	2.27	26.54	300	5.83	33.89	4.11	1.74	26.72	137	0.59
									400	4.81	33.95	2.72	2.23	26.89	122	0.72
230b)	7.05	33.93	4.56	1.88	–	–	–	26.59	500	4.37	34.04	1.75	2.50	27.01	111	0.83
									600	4.00	34.14	1.11	2.64	27.12	100	0.94
247a)	6.43	33.91	4.75	1.33	30	7.75	2.28	26.66	700	3.70	34.22	0.78	2.91	27.22	92	1.03
									800	3.46	34.27	0.67	3.04	27.28	86	1.12
276b)	6.18	33.89	4.47	1.65	35	7.74	2.33	26.68	1000	3.04	34.36	0.46	2.90	27.39	76	1.28
368	5.04	33.92	3.16	2.03	55	7.58	2.35	26.84	1200	2.72	34.43	0.43	2.89	27.48	69	1.43
460	4.48	34.00	2.05	2.48	73	7.50	2.35	26.96	1500	2.34	34.52	0.53	3.07	27.58	59	1.62
552	4.20	34.09	1.40	2.56	88	7.38	2.41	27.06	2000	1.92	34.60	1.34	3.13	27.68	51	1.90
646	3.84	34.18	0.90	2.74	102	7.45	2.39	27.17	2500	1.71	34.67	2.02	2.68	27.75	45	2.13
738	3.61	34.24	0.71	3.00	110	7.33	2.41	27.24	3000	1.56	34.67	2.60	2.80	27.76	44	2.36
921	3.20	34.33	0.57	3.03	126	7.31	2.44	27.35	4000	1.48	34.69	3.11	2.73	27.78	44	2.80
1103	2.86	34.40	0.38	2.81	140	7.40	2.44	27.44								
1378	2.48	34.48	0.50	3.01	148	7.35	2.46	27.54								
1498c)	2.34	34.52	0.53	3.07	154	7.42	2.47	27.58								
1998	1.92	34.60	1.34	3.13	164	7.47	2.45	27.68								
2497	1.71	34.67	2.02	2.68	162	7.55	2.47	27.75								
2996	1.56	34.67	2.60	2.80	159	7.62	2.47	27.76								
3494	1.50	34.69	2.96	2.77	160	7.63	2.45	27.78								
3996	1.48	–	–	–	–	–	–									
4496	1.52	34.69	3.18	2.74	152	7.68	2.46	27.78								
4796	1.56	34.69	3.19	2.77	158	7.67	2.46	27.78								
4896	1.58	34.70	3.17	2.52	155	7.68	2.47	27.79								

a) First cast; wire angle, 05°.
b) Second cast; wire angle, 15°.
c) Third cast; wire angle, 04°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; July 14, 1958; 2100 GCT; 42°05'N, 144°18'W; sounding, 4709 m; wind, 090°, force 4; weather, cloudy; sea, moderate.																
0a)	18.32	33.18	5.49	0.47	0			23.82	0	18.32	33.18	5.49	0.47	23.82	409	0.00
10	17.93	33.19	5.54	0.40	0			23.93	10	17.93	33.19	5.54	0.40	23.93	399	0.04
20	14.94	33.26	6.08	0.45	5			24.67	20	14.94	33.26	6.08	0.45	24.67	329	0.08
30	12.21	33.24	6.81	0.62	6			25.20	30	12.21	33.24	6.81	0.62	25.20	278	0.11
49	9.96	33.27	6.57	0.67	6			25.63	50	9.91	33.27	6.54	0.69	25.64	237	0.16
74	9.04	33.29	6.12	0.94	5			25.80	75	9.03	33.30	6.12	0.92	25.80	222	0.21
									100	8.94	33.28	6.25	1.08	25.80	222	0.27
94b)	9.00	33.31	6.12	0.86	7			25.82	150	8.91	33.96	4.99	1.32	26.34	172	0.37
									200	8.11	33.98	4.89	1.34	26.48	160	0.45
99a)	8.87	33.36	5.99	0.84	-			25.88	250	7.57			1.55			
									300	6.79			1.79			
117b)	8.94	33.42	5.86	1.33	14			25.91	400	5.38			2.27			
									500	4.58		1.85	2.73			
123a)	-	33.71	5.26	1.13	-				600	4.11		1.11	2.45			
148	8.95	33.96	5.00	1.30	36			26.33	700	3.83		0.61	3.19			
172	8.47	33.98	4.94	1.42	37			26.42	800	3.53		0.49	3.04			
197	8.09	33.98	4.92	1.39	58			26.48	1000	3.06	34.36	0.38	2.60	27.39	76	
									1200	2.71	34.44	0.40	2.53	27.49	68	
222c)	8.08	33.97	4.77	1.21	-			26.47								
246a)	7.62	33.97	4.80	1.54	52			26.54								
266c)	7.36	-	-	1.59	-											
355	5.98	-	-	2.07	69											
444	4.92	-	2.46	2.45	78											
532	4.41	-	1.56	2.77	92											
620	4.04	-	0.99	2.47	114											
710	3.80	-	0.57	3.24	120											
886	3.31	34.30	0.43	2.86	134			27.32								
1064	2.94	34.39	0.37	2.52	158			27.43								
1330	2.54	34.47	0.49	2.77	174			27.52								

a) First cast; wire angle, 09°.
b) Third cast; wire angle, 20°.
c) Second cast; wire angle, 25°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; July 15, 1958; 2200 GCT; 40°38'N, 142°56'W; sounding, 4663 m; wind, 110°, force 3; weather, overcast; sea, slight.																
0a)	19.47	33.38	5.43	0.35	0	8.05	2.23	23.69	0	19.47	33.38	5.43	0.35	23.69	422	0.00
10	18.82	33.39	5.61	0.37	0	8.04	2.20	23.86	10	18.82	33.39	5.61	0.37	23.86	406	0.04
20	15.36	33.35	6.38	0.33	0	8.04	2.20	24.64	20	15.36	33.35	6.38	0.33	24.64	331	0.08
30	12.85	33.40	6.72	0.44	0	8.04	2.22	25.20	30	12.85	33.40	6.72	0.44	25.20	278	0.11
49	10.93	33.38	6.69	0.44	0	8.00	2.23	25.55	50	10.86	33.38	6.65	0.46	25.56	244	0.16
74	9.83	33.37	5.98	0.84	0	7.96	2.19	25.73	75	9.83	33.38	5.98	0.84	25.74	228	0.22
98	9.81	33.48	5.95	0.79	0	7.96	2.20	25.82	100	9.80	33.48	5.97	0.79	25.82	221	0.28
123	9.76	33.56	5.91	0.82	0	7.96	2.23	25.89	150	9.90	33.86	5.18	1.02	26.10	195	0.38
147	9.90	33.83	5.22	1.01	0	7.89	2.25	26.08	200	9.06	34.05	4.93	1.36	26.39	169	0.47
172	9.73	34.03	4.96	1.16	10	7.88	2.26	26.26	250	8.09	34.04	5.01	1.49	26.53	156	0.55
196	9.17	34.05	4.90	1.38	14	7.83	2.26	26.37	300	7.39	34.00	4.69	1.88	26.60	150	0.63
									400	5.90	33.96	3.54	2.25	26.77	134	0.77
237b)	8.23	34.01	5.05	1.33	-	7.76	2.28	26.48	500	4.92	34.00	2.30	2.73	26.91	120	0.90
284	7.68	34.02	4.84	1.82	50	7.75	2.28	26.57	600	4.29	34.08	1.38	3.12	27.05	108	1.01
380	6.14	33.95	3.83	2.19	53	7.62	2.24	26.73	700	3.90	34.17	0.50	3.29	27.16	98	1.11
475	5.12	33.99	2.58	2.55	72	7.53	2.34	26.88	800	3.58	34.24	0.62	3.42	27.25	90	1.21
571	4.44	34.05	1.62	3.09	82	7.40	2.33	27.01	1000	3.11	34.35	0.38	3.41	27.38	78	1.37
666	4.00	34.14	0.97	3.21	100	7.38	2.37	27.12	1200	2.80	34.43	0.33	3.31	27.47	69	1.52
761	3.72	34.21	0.68	3.40	113	7.33	2.37	27.21								
956	3.18	-	-	-	-	-	-									
980a)	3.14	34.34	0.40	3.43	-	7.33	2.39	27.37								
1151b)	2.87	34.41	0.32	3.32	137	7.35	2.42	27.45								
1444	2.46	34.50	0.57	3.36	150	7.32	2.43	27.56								

a) Second cast; wire angle, 15°.
b) First cast; wire angle, 14°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; July 17, 1958; 0500 GCT; 38°14'N, 140°28'W; sounding, 5212 m; wind, 050°, force 1; weather, cloudy; sea, smooth.																
0a)	20.06	33.26	5.30	0.67	0	7.95	2.18	23.44	0	20.06	33.26	5.30	0.67	23.44	445	0.00
10	18.96	33.26	5.38	0.41	0	7.97	2.18	23.72	10	18.96	33.26	5.38	0.41	23.72	419	0.04
20	15.02	33.07	6.00	0.69	0	7.96	2.17	24.50	20	15.02	33.07	6.00	0.69	24.50	345	0.08
30	13.86	33.09	6.03	0.36	0	7.96	2.17	24.76	30	13.86	33.09	6.03	0.36	24.76	320	0.11
50	11.86	33.10	6.17	0.48	0	7.94	2.17	25.16	50	11.86	33.10	6.17	0.48	25.16	282	0.17
75	10.94	33.18	5.86	0.54	0	7.92	2.17	25.39	75	10.94	33.18	5.86	0.54	25.39	261	0.24
100	10.73	33.20	5.82	0.66	0	7.91	2.18	25.44	100	10.73	33.20	5.82	0.66	25.44	257	0.31
124	10.20	33.49	5.58	0.98	0	7.90	2.21	25.76	150	9.81	33.87	5.02	1.15	26.12	193	0.42
149	9.82	33.87	5.03	1.15	0	7.82	2.22	26.12	200	9.13	34.01	4.97	1.36	26.34	173	0.51
174	9.53	33.96	4.91	1.26	5	7.80	2.23	26.24	250	8.52	34.04	4.83	1.62	26.46	162	0.59
									300	7.72	34.01	4.48	1.69	26.56	153	0.67
199b)	9.14	34.01	4.97	1.35	10	7.80	2.23	26.34	400	6.20	33.96	3.39	2.21	26.73	138	0.82
249	8.54	34.04	4.84	1.62	13	7.70	2.25	26.46	500	5.10	34.00	2.24	2.66	26.89	122	0.95
299	7.74	34.01	4.49	1.68	20	7.72	2.25	26.56	600	4.37	34.09	1.13	3.04	27.05	108	1.06
									700	3.95	34.18	0.64	2.71	27.16	97	1.17
398a)	6.34	33.97	3.52	2.22	38	7.58	2.28	26.72	800	3.72	34.27	0.46	2.92	27.26	89	1.26
									1000	3.31	34.40	0.43	2.75	27.40	76	1.42
399b)	6.12	33.96	3.30	2.18	39	7.60	2.27	26.74	1200	2.91	34.48	0.49	3.28	27.50	67	1.57
									1500	2.41	34.55	0.77	3.09	27.60	58	1.76
498a)	5.12	34.00	2.27	2.64	46	7.47	2.30	26.89	2000	1.94	34.62	1.59	2.32	27.69	49	2.02
									2500	1.73	34.65	2.13	2.45	27.73	46	2.26
598b)	4.38	34.09	1.14	3.05	78	7.36	2.31	27.05	3000	1.56	34.67	2.61	2.77	27.76	44	2.49
698	3.96	34.18	0.65	2.70	92	7.37	2.36	27.16	4000	1.49	34.69	3.13	2.24	27.78	44	2.93
798	3.72	34.27	0.46	2.93	108	7.33	2.37	27.26								
997	3.32	34.40	0.43	2.74	120	7.36	2.40	27.40								
1197	2.92	34.48	0.49	3.28	132	7.37	2.43	27.50								
1496	2.41	34.55	0.76	3.10	142	-	-	27.60								
1729c)	2.15	34.59	1.27	2.63	149	7.44	2.45	27.65								
2229	1.80	34.64	1.84	2.22	153	7.50	2.43	27.72								
2728	1.63	-	-	-	-	-	-									
2781d)	1.60	34.66	2.41	2.63	-	7.60	2.46	27.75								

(continued on next page)

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	SiO_3-Si µg at/L	pH	Alk. meq/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ cl/ton	ΔD dyn m

(continued from preceding page)

3227c)	1.53	34.68	2.79	2.80	146	7.58	2.45	27.77
3726	1.49	34.69	3.07	2.42	142	7.60	2.45	27.78
4228	1.50	34.69	3.20	2.21	144	7.63	2.46	27.78
4724	1.54	34.71	3.40	2.54	135	-	-	27.80
4885d)	1.56	34.70	3.43	2.60	137	7.60	2.43	27.79

a) First cast; wire angle, 02°.
b) Second cast; wire angle, 02°.
c) Third cast; wire angle, 08°.
d) Fourth cast; wire angle, 08°.

BROWN BEAR; July 18, 1958; 2300 GCT; 39°22'N, 136°27'W; sounding, 4938 m; wind, 080°, force 1; weather, cloudy; sea, smooth.

0a)	19.12	33.44	5.30	0.60	0	8.00	2.24	23.82	0	19.12	33.44	5.30	0.60	23.82	409	0.00
10	18.20	33.45	5.47	0.36	0	8.01	2.23	24.06	10	18.20	33.45	5.47	0.36	24.06	387	0.04
20	-	33.22	5.39	0.36	0	8.03	2.23		20	17.35	33.22	5.39	0.36	24.09	384	0.08
30	16.38	33.17	5.82	0.57	0	8.02	2.21	24.28	30	16.38	33.17	5.82	0.57	24.28	366	0.12
50	13.68	33.19	6.00	0.42	0	8.00	2.23	24.88	50	13.68	33.19	6.00	0.42	24.88	310	0.18
75	11.88	33.18	5.97	0.85	0	8.02	2.23	25.22	75	11.88	33.18	5.97	0.85	25.22	278	0.26
100	11.70	33.32	5.75	0.61	0	8.00	2.24	25.36	100	11.70	33.32	5.75	0.61	25.36	264	0.33
124	9.88	33.56	5.05	1.21	7	8.00	2.24	25.87	150	9.36	33.71	5.15	1.63	26.07	198	0.44
149	9.38	33.70	5.16	1.63	5	7.89	2.24	26.06	200	8.94	33.87	5.11	1.45	26.26	180	0.54
173	9.06	33.82	5.05	1.58	6	7.87	2.26	26.21	250	8.61	34.00	4.88	1.58	26.42	166	0.62
200b)	8.94	33.87	5.11	1.45	13	7.77	2.26	26.26	300	7.74	34.00	4.79	3.35	26.55	154	0.70
250	8.61	34.00	4.88	1.58	17	7.80	2.29	26.42	400	6.06	33.95	3.12	2.63	26.74	137	0.85
300	7.74	34.00	4.79	3.35	17	7.77	2.28	26.55	500	4.84	34.00	1.95	2.97	26.92	119	0.98
397a)	6.11	33.95	3.16	2.62	42	7.60	2.30	26.73	600	4.26	34.11	0.96	3.52	27.07	105	1.09
496	4.86	33.99	2.00	3.10	62	7.48	2.35	26.91	700	3.93	34.18	0.62	3.43	27.16	97	1.19
499b)	4.84	34.00	1.96	2.80	-	7.47	2.36	26.92	800	3.72	34.26	0.40	3.61	27.25	90	1.28
598	4.27	34.11	0.97	3.52	81	7.38	2.35	27.07	1000	3.29	34.39	0.21	4.04	27.39	77	1.45
698	3.93	34.18	0.62	3.43	107	7.36	2.39	27.16	1200	2.91	34.47	0.43	3.76	27.49	68	1.59
797	3.73	34.26	0.41	3.60	114	7.33	2.40	27.25								
996	3.30	34.39	0.21	4.05	127	7.30	2.41	27.39								
1196	2.92	34.47	0.43	3.76	135	7.36	2.43	27.49								

(continued on next page)

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
1496c)	2.36	34.55	0.80	3.64	146	7.39	2.44	27.60								

a) Fourth cast; wire angle, 04°.
b) First cast; wire angle, 03°.
c) Third cast; wire angle, 04°.

BROWN BEAR; July 20, 1958; 0600 GCT; 40°35'N, 132°23'W; sounding, 3859 m; wind, 020°, force 4; weather, overcast; sea, slight.

0a)	16.94	32.68	5.54	0.64	0	8.01	2.26	23.77	0	16.94	32.68	5.54	0.64	23.77	414	0.00
10	16.92	32.68	5.58	0.64	0	8.03	2.17	23.78	10	16.92	32.68	5.58	0.64	23.78	414	0.04
20	16.82	32.68	5.49	0.84	0	8.05	2.17	23.80	20	16.82	32.68	5.49	0.84	23.80	412	0.08
30	14.50	32.82	6.04	0.67	0	8.04	2.17	24.42	30	14.50	32.82	6.04	0.67	24.42	353	0.12
50	11.08	32.72	6.66	0.82	0	8.04	2.16	25.01	50	11.08	32.72	6.66	0.82	25.01	297	0.18
74	10.12	32.82	5.54	1.08	0	7.99	2.17	25.25	75	10.08	32.85	5.52	1.09	25.28	271	0.26
99	9.22	33.35	5.12	1.39	13	7.93	2.20	25.81	100	9.19	33.36	5.11	1.41	25.83	220	0.32
124	8.72	33.53	4.91	1.75	-	7.82	2.23	26.03	150	8.49	33.73	4.53	1.93	26.22	183	0.42
148	8.51	33.71	4.56	1.92	13	7.73	2.24	26.21	200	8.10	33.92	4.46	1.99	26.43	164	0.50
172	8.29	33.88	4.38	1.96	23	7.71	2.25	26.37	250	7.31	33.96	4.13	2.31	26.58	151	0.58
									300	6.46	33.95	3.35	2.51	26.69	141	0.66
194b)	8.18	33.91	4.46	1.93	31	7.71	2.26	26.41	400	5.45	33.99	1.94	3.17	26.84	126	0.79
243	7.45	33.96	4.24	2.30	51	7.69	2.26	26.56	500	4.87	34.07	1.18	3.43	26.98	114	0.91
292	6.56	33.95	3.49	2.43	50	7.61	2.29	26.67	600	4.50	34.15	0.69	3.81	27.08	105	1.02
									700	4.13	34.23	0.44	3.77	27.18	96	1.12
396a)	5.48	33.99	1.98	3.17	59	7.43	2.29	26.84	800	3.81	34.30	0.35	3.69	27.27	88	1.21
									1000	3.32	34.41	0.35	3.79	27.41	76	1.38
488b)	4.96	34.05	1.27	3.49	81	7.39	2.33	26.95	1200	2.99	34.49	0.48	3.46	27.50	67	1.52
									1500	2.52	34.55	0.91	3.55	27.59	59	1.71
496a)	4.84	34.06	1.19	3.27	87	7.32	2.33	26.97	2000	1.94	34.61	1.62	3.39	27.69	50	1.98
									2500	1.73	34.65	2.02	3.22	27.73	46	2.22
585b)	4.56	34.14	0.74	3.79	114	7.33	2.31	27.07	3000	1.59	34.67	2.46	3.14	27.76	45	2.45
683	4.19	34.22	0.46	3.82	123	7.31	2.38	27.17								
781	3.87	34.29	0.35	3.64	129	7.30	2.39	27.26								
975	3.36	34.40	0.35	3.87	150	7.31	2.41	27.39								
1168	3.04	34.48	0.44	3.44	169	7.40	2.43	27.49								
1455	2.58	34.54	0.85	3.82	145	7.30	2.44	27.58								

(continued on next page)

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m

(continued from preceding page)

1477c)	2.56	34.54	0.85	3.31	182	7.40	2.44	27.58
1974	1.95	34.61	1.60	3.40	188	7.43	2.44	27.69
2475	1.74	34.65	1.99	3.24	164	7.52	2.44	27.73
2976	1.59	34.67	2.46	3.10	177	7.53	2.45	27.76
3476	1.56	34.68	2.68	3.30	185	7.57	2.45	27.77
3675	1.55	34.68	2.84	3.01	185	7.61	-	27.77
3704	1.56	-	-	-	-	-	-	

a) First cast; wire angle, 08°.
b) Second cast; wire angle, 13°.
c) Third cast; wire angle, 11°.

BROWN BEAR; July 21, 1958; 0700 GCT; 40°07'N, 130°46'W; sounding, 4389 m; wind, 030°, force 5; weather, cloudy; sea, moderate.

0a)	17.04	32.83	5.54	0.41	25	23.86	0	17.04	32.83	5.54	0.41	23.86	405	0.00
10	17.04	32.83	5.49	0.42	26	23.86	10	17.04	32.83	5.49	0.42	23.86	405	0.04
20	17.03	32.83	5.47	0.48	21	23.87	20	17.03	32.83	5.47	0.48	23.87	405	0.08
30	16.92	32.83	5.43	0.95	16	23.89	30	16.92	32.83	5.43	0.95	23.89	403	0.12
49	11.81	32.82	6.44	0.65	44	24.95	50	11.77	32.82	6.41	0.68	24.96	302	0.19
73	10.70	32.87	5.82	1.21	28	25.19	75	10.55	32.91	5.77	1.24	25.25	274	0.26
98	9.17	33.24	5.32	1.48	30	25.74	100	9.08	33.25	5.31	1.50	25.76	226	0.33
122	8.38	33.39	5.19	1.64	22	25.98	150	8.12	33.56	5.00	1.80	26.15	190	0.43
146	8.12	33.55	5.03	1.71	32	26.14	200	7.58	33.90	4.42	1.98	26.49	158	0.52
170	8.02	33.70	4.77	1.93	56	26.27	250	6.86	33.94	3.85	2.79	26.62	146	0.59
							300	6.19	33.94	3.08	3.06	26.71	138	0.66
184b)	7.82	33.86	4.51	1.69	-	26.43	400	5.26	33.99	1.78	3.06	26.87	124	0.80
231	7.13	33.94	4.14	2.49	83	26.59	500	4.79	34.09	1.04	3.47	27.00	112	0.91
278	6.49	33.94	3.44	3.12	94	26.67	600	4.43	34.17	0.67	3.56	27.10	103	1.02
							700	4.26	34.27	0.40	3.53	27.20	94	1.12
389a)	5.31	33.98	1.89	3.02	100	26.85	800	3.99	34.34	0.30	3.86	27.28	87	1.21
							1000	3.42	34.42	0.36	3.86	27.40	76	1.37
464b)	5.00	34.04	1.42	3.42	-	26.94	1200	2.99	34.48	0.54	3.58	27.49	68	1.52
486a)	4.86	34.10	0.88	3.24	112	27.00								

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OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
556b)	4.54	34.14	0.80	3.64	131			27.07								
649	4.32	34.21	0.54	3.52	130			27.15								
743	4.18	34.31	0.32	3.57	139			27.24								
929	3.60	34.40	0.31	4.14	155			27.37								
1114	3.16	34.46	0.46	3.61	-			27.46								
1395	2.68	34.53	0.77	4.00	180			27.56								

a) Second cast; wire angle, 15°.
b) First cast; wire angle, 20°.

BROWN BEAR; July 22, 1958; 0700 GCT; 39°23'N, 128°25'W; sounding, 4115 m; wind, 350°, force 5; weather, rain; sea, rough.

0a)	16.91	32.89	5.58	0.74	0	7.97	2.13	23.94	0	16.91	32.89	5.58	0.74	23.94	398	0.00
10	16.90	32.89	5.52	0.63	0	7.97	2.17	23.94	10	16.90	32.89	5.52	0.63	23.94	398	0.04
20	16.90	32.89	5.50	0.73	0	7.97	2.17	23.94	20	16.90	32.89	5.50	0.73	23.94	398	0.08
30	16.84	32.89	5.53	0.66	0	7.99	2.18	23.96	30	16.84	32.89	5.53	0.66	23.96	397	0.12
50	12.12	32.81	6.38	0.75	0	7.96	2.16	24.89	50	12.12	32.81	6.38	0.75	24.89	308	0.19
74	11.18	32.96	5.88	0.85	0	7.92	2.17	25.18	75	11.13	32.97	5.85	0.87	25.19	280	0.26
99	9.99	33.24	5.33	1.33	0	7.86	2.19	25.60	100	9.94	33.25	5.32	1.34	25.62	240	0.33
148	8.26	33.65	4.80	1.65	14	7.77	2.23	26.20	150	8.25	33.66	4.79	1.66	26.21	185	0.44
198	7.80	33.91	4.36	1.98	30	7.72	2.25	26.47	200	7.84	33.88	4.44	1.86	26.44	163	0.52
									250	7.18	33.94	3.97	2.10	26.58	150	0.60
207b)	7.84	33.87	4.47	1.76	31	7.61	2.24	26.43	300	6.48	33.94	3.18	2.33	26.68	142	0.67
238	7.48	33.94	4.26	1.95	46	7.64	2.26	26.54	400	5.42	33.98	1.87	2.37	26.84	126	0.81
									500	4.78	34.07	1.02	2.73	26.99	113	0.93
247a)	7.14	33.94	3.92	2.01	-	7.63	2.25	26.59	600	4.51	34.19	0.62	3.36	27.11	102	1.04
									700	4.19	34.27	0.36	3.57	27.21	93	1.13
271b)	6.86	33.94	3.65	2.38	42	7.57	2.26	26.62	800	3.89	34.34	0.37	3.54	27.29	86	1.22
									1000	3.43	34.45	0.43	3.71	27.43	74	1.38
494a)	4.79	34.06	1.05	2.68	70	7.42	2.36	26.98	1200	2.99	34.51	0.57	3.70	27.52	66	1.52
601c)	4.51	34.19	0.62	3.36	81	7.30	2.36	27.11								
706d)	4.17	34.27	0.35	3.58	100	7.24	2.36	27.21								
805	3.88	34.34	0.37	3.55	114	7.30	2.37	27.30								
891e)	3.72	34.39	0.39	3.80	123	7.25	2.37	27.35								
1089	3.22	34.48	0.48	3.68	142	7.27	2.41	27.47								
1286	2.84	34.52	0.66	3.75	159	7.34	2.43	27.54								

a) Seventh cast; wire angle, 05°.
b) First cast; wire angle, 34°.
c) Fourth cast; wire angle, 03°.
d) Fifth cast; wire angle, 05°.
e) Sixth cast; wire angle, 06°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	SiO_3-Si µg at/L	pH	Alk. meq/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ cl/ton	ΔD dyn m
BROWN BEAR; July 23, 1958; 0800 GCT; 38°49'N, 126°03'W; sounding, 4096 m; wind, 340°, force 5; weather, overcast; sea, moderate.																
0a)	14.89	32.97	5.86	0.61	42	7.99	2.19	24.45	0	14.89	32.97	5.86	0.61	24.45	349	0.00
10	14.88	32.96	5.84	0.83	34	7.97	2.17	24.45	10	14.88	32.96	5.84	0.83	24.45	350	0.04
20	14.86	32.96	5.82	0.59	57	7.98	2.17	24.45	20	14.86	32.96	5.82	0.59	24.45	349	0.07
30	14.50	32.98	5.77	0.70	53	7.99	2.20	24.54	30	14.50	32.98	5.77	0.70	24.54	341	0.10
50	11.92	33.15	6.05	0.92	34	7.90	2.20	25.19	50	11.92	33.15	6.05	0.92	25.19	280	0.17
74	10.91	33.29	6.20	1.36	37	7.86	2.22	25.48	75	10.86	33.30	6.11	1.37	25.50	251	0.23
99	9.67	33.53	4.36	1.71	56	7.80	2.24	25.88	100	9.62	33.54	4.32	1.74	25.90	213	0.29
124	8.69	33.66	3.60	2.05	66	7.76	2.26	26.14	150	8.22	33.77	3.40	1.81	26.30	176	0.39
149	8.22	33.76	3.44	1.79	72	7.64	2.27	26.29	200	7.76	33.98	2.33	2.52	26.53	155	0.47
174	8.06	33.95	2.41	2.19	85	7.52	2.26	26.46	250	7.13	34.04	1.90	2.83	26.67	142	0.54
									300	6.63	34.07	1.55	2.82	26.76	134	0.61
192b)	7.96	33.98	2.48	2.42	112	7.52	2.26	26.50	400	5.89	34.11	1.15	2.88	26.89	123	0.74
238	7.26	34.03	2.03	2.82	123	7.43	2.26	26.64	500	5.45	34.22	0.66	3.30	27.03	110	0.86
284	6.78	34.07	1.58	2.84	142	7.41	2.32	26.74	600	4.75	34.25	0.54	3.59	27.13	100	0.96
									700	4.28	34.28	0.36	3.60	27.21	94	1.06
396a)	5.90	34.10	1.19	2.87	-	7.40	2.33	26.88	800	4.06	34.34	0.33	3.48	27.28	88	1.15
									1000	3.61	34.44	0.41	3.29	27.40	77	1.32
471b)	5.54	34.19	0.65	3.48	146	7.34	2.35	26.99	1200	3.15	34.50	0.70	3.89	27.49	68	1.46
									1500	2.66	34.55	0.98	2.94	27.58	61	1.65
495a)	5.53	34.21	0.59	2.92	-	7.37	2.35	27.01	2000	2.02	34.62	1.47	3.61	27.69	50	1.93
									2500	1.75	34.65	1.62	3.18	27.73	47	2.17
564b)	5.06	34.26	0.69	3.57	144	7.30	2.35	27.10	3000	1.61	34.67	2.58	3.07	27.76	45	2.40
658	4.39	34.25	0.38	3.60	146	7.33	2.38	27.17								
753	4.15	34.31	0.35	3.57	139	7.27	2.37	27.24								
944	3.76	34.42	0.34	3.30	156	7.29	2.41	27.37								
1135	3.28	34.49	0.57	3.30	187	7.36	2.42	27.47								
1423	2.78	34.53	0.91	3.40	204	7.33	2.43	27.55								
1467c)	2.72	34.54	0.91	2.84	189	7.33	2.44	27.57								
1948	2.06	34.61	1.55	3.69	213	7.41	2.45	27.68								
2431	1.78	34.65	1.40	3.17	207	7.47	2.46	27.73								
2917	1.62	34.67	2.54	3.14	212	7.49	2.46	27.76								
3412	1.54	34.68	2.80	2.86	204	7.50	2.46	27.77								
3709	1.50	34.69	2.99	2.82	205	7.57	2.46	27.78								
3809	1.49	34.69	3.05	2.92	218	7.57	2.46	27.78								

a) Fourth cast; wire angle, 03°.
b) Second cast; wire angle, 10°.
c) Third cast; wire angle, 15°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; July 26, 1958; 2300 GCT; 37°04'N, 123°44'W; sounding, 3493 m; wind, 290°, force 3; weather, overcast; sea, slight.																
0a)	16.45	33.06	5.36	1.30	0	8.03	2.33	24.18	0	16.45	33.06	5.36	1.30	24.18	375	0.00
10	16.36	33.06	4.97	1.20	0	8.08	2.30	24.20	10	16.36	33.06	4.97	1.20	24.20	374	0.04
20	15.56	33.03	5.64	0.86	0	8.04	2.20	24.35	20	15.56	33.03	5.64	0.86	24.35	359	0.07
29	13.68	33.03	6.02	0.84	0	8.03	2.22	24.75	30	13.52	33.04	5.98	0.86	24.79	317	0.11
49	11.00	33.23	5.20	1.17	14	7.88	2.21	25.42	50	10.91	33.24	5.15	1.19	25.44	256	0.16
73	9.39	33.47	4.21	1.64	11	7.74	2.25	25.88	75	9.34	33.48	4.18	1.66	25.90	213	0.22
98	8.82	33.62	3.79	1.88	18	7.72	2.26	26.09	100	8.79	33.63	3.74	1.91	26.10	194	0.28
123	8.48	33.77	3.19	2.18	27	7.66	2.26	26.26	150	8.15	33.91	2.73	2.23	26.42	165	0.36
147	8.19	33.90	2.74	2.19	29	7.62	2.26	26.40	200	7.75	34.04	1.83	2.33	26.58	150	0.44
171	7.94	33.96	2.52	2.38	32	7.55	2.26	26.49	250	7.38	34.08	1.52	2.78	26.66	143	0.52
									300	6.98	34.11	1.23	2.75	26.74	136	0.59
196b)	7.78	34.04	1.86	2.26	33	7.53	2.35	26.57	400	6.08	34.18	0.75	3.22	26.92	120	0.72
244	7.42	34.08	1.55	2.81	30	7.49	2.29	26.66	500	5.45	34.25	0.54	3.40	27.05	108	0.83
292	7.06	34.11	1.29	2.70	47	7.50	2.34	26.73	600	4.94	34.31	0.33	3.44	27.16	98	0.93
									700	4.53	34.37	0.27	3.22	27.25	90	1.03
392a)	6.14	34.17	0.76	3.21	65	7.41	2.33	26.90	800	4.21	34.40	0.29	3.24	27.31	85	1.11
									1000	3.63	34.46	0.43	3.23	27.42	75	1.27
482b)	5.58	34.24	0.58	3.19	76	7.40	2.39	27.03	1200	3.14	34.52	0.64	2.91	27.51	67	1.42
									1500	2.65	34.57	1.04	3.50	27.60	59	1.60
490a)	5.48	34.24	0.57	3.54	75	7.37	2.37	27.04	2000	2.04	34.63	1.66	3.40	27.69	50	1.88
									2500	1.75	34.67	2.24	3.15	27.75	45	2.12
576b)	5.06	34.29	0.36	3.49	84	7.33	2.37	27.13	3000	1.62	34.68	2.66	2.93	27.77	44	2.34
668	4.64	34.36	0.27	3.30	90	7.43	2.42	27.23								
762	4.33	34.39	0.28	3.14	97	7.36	2.41	27.29								
950	3.76	34.45	0.37	3.37	111	7.38	2.43	27.40								
1140	3.30	34.50	0.59	2.99	126	7.43	2.45	27.48								
1430	2.71	34.56	0.93	3.19	140	7.38	2.44	27.58								
1529c)	2.62	34.57	1.09	3.60	142	7.37	2.44	27.60								
2028	2.01	34.63	1.69	3.39	158	7.43	2.44	27.70								
2527	1.74	34.67	2.27	3.14	162	7.48	2.44	27.75								
3026	1.62	34.68	2.67	2.91	160	7.53	2.45	27.77								
3275	1.58	34.68	2.73	2.64	165	7.55	2.45	27.77								
3375	1.58	34.69	2.74	2.64	-	7.53	2.45	27.78								

a) First cast; wire angle, 11°.
b) Second cast; wire angle, 11°.
c) Third cast; wire angle, 19°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	SiO_3-Si µg at/L	pH	Alk. meq/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ cl/ton	ΔD dyn m
BROWN BEAR; August 4, 1958; 0200 GCT; 33°55'N, 126°10'W; sounding, 4572 m; wind, 360°, force 7; weather, partly cloudy; sea, moderate.																
0a)	18.60	33.14	5.19	0.86	0	8.13	2.30	23.72	0	18.60	33.14	5.19	0.86	23.72	418	0.00
10	18.62	33.13	4.52	0.56	0	8.13	2.31	23.71	10	18.62	33.13	4.52	0.56	23.71	420	0.04
20	18.58	33.14	5.31	0.39	0	8.12	2.23	23.73	20	18.58	33.14	5.31	0.39	23.73	419	0.08
30	18.14	33.12	5.38	0.87	0	8.10	2.25	23.82	30	18.14	33.12	5.38	0.87	23.82	410	0.12
50	15.40	33.30	5.84	0.55	0	8.09	2.25	24.60	50	15.40	33.30	5.84	0.55	24.60	337	0.20
75	14.16	33.24	5.80	0.74	0	8.07	2.23	24.82	75	14.16	33.24	5.80	0.74	24.82	316	0.28
100	12.02	33.28	5.17	0.87	0	7.99	2.24	25.27	100	12.02	33.28	5.17	0.87	25.27	273	0.36
125	9.75	33.39	4.57	1.28	4	7.88	2.25	25.76	150	9.06	33.53	4.45	1.44	25.98	206	0.48
149	9.06	33.53	4.45	1.43	8	7.85	2.26	25.98	200	8.16	33.91	3.31	1.96	26.42	166	0.57
174	8.72	33.68	4.09	1.70	14	7.80	2.28	26.15	250	7.45	34.01	2.48	2.16	26.60	149	0.65
									300	6.86	34.03	1.96	2.28	26.70	140	0.72
186b)	8.32	33.86	3.61	1.85	18	7.70	2.29	26.35	400	6.31	34.10	1.17	2.67	26.82	129	0.85
243	7.58	34.01	2.56	2.17	26	7.62	2.28	26.58	500	5.55	34.21	0.58	2.78	27.01	112	0.98
281	6.94	34.02	2.13	2.17	38	7.60	2.32	26.68	600	5.03	34.30	0.35	2.95	27.14	100	1.08
									700	4.66	34.37	0.30	2.88	27.24	92	1.18
398a)	6.33	34.10	1.19	2.67	51	7.51	2.34	26.82	800	4.33	34.42	0.35	2.93	27.31	85	1.26
									1000	3.77	34.49	0.51	2.93	27.43	75	1.42
485b)	5.63	34.22	0.58	2.71	66	7.50	2.38	27.00	1200	3.30	34.53	0.81	3.03	27.50	68	1.57
									1500	2.70	34.58	1.10	2.84	27.60	59	1.76
498a)	5.56	34.17	0.63	2.78	67	7.54	2.39	26.97	2000	2.00	34.64	1.72	2.79	27.71	49	2.03
									2500	1.71	34.66	2.23	3.37	27.74	45	2.26
582b)	5.10	34.28	0.38	2.99	76	7.46	2.39	27.11	3000	1.56	34.69	2.57	2.70	27.78	43	2.48
678	4.74	34.36	0.29	2.86	97	7.52	2.42	27.22	4000	1.48	34.70	3.28	2.60	27.79	44	2.92
775	4.41	34.41	0.34	2.93	100	7.46	2.41	27.30								
968	3.84	34.48	0.45	2.93	110	7.52	2.42	27.41								
1164	3.40	34.52	-	2.99	119	7.49	2.45	27.49								
1289c)	3.08	34.55	0.91	3.07	126	7.50	2.44	27.54								
1463b)	2.77	34.57	1.05	2.85	131	7.55	2.43	27.58								
1578c)	2.56	34.59	1.21	2.83	139	7.56	2.45	27.62								
2055	1.95	34.64	1.78	2.82	153	7.42	2.46	27.71								
2530	1.70	34.66	2.26	3.37	159	7.53	2.46	27.74								
3015	1.56	34.69	2.58	2.69	160	7.60	2.46	27.78								
3496	1.49	34.69	2.99	2.86	155	7.60	2.46	27.78								
3996	1.48	34.70	3.28	2.60	150	7.60	2.46	27.79								

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OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
4450d)	1.51	34.70	3.32	2.48	143	7.63	2.47	27.79								
4550	1.52	34.70	3.34	2.54	144	7.64	2.46	27.79								

a) Fourth cast; wire angle, 02°.
b) First cast; wire angle, 17°.
c) Second cast; wire angle, 12°.
d) Third cast; wire angle, 08°.

BROWN BEAR; August 4, 1958; 2200 GCT; 32°55'N, 127°39'W; sounding, 4554 m; wind, 360°, force 4; weather, partly cloudy; sea, moderate.

0a)	19.40	33.35	5.05	0.79	23.68	0	19.40	33.35	5.05	0.79	23.68	422	0.00
10	19.34	33.34	5.12	0.88	23.69	10	19.34	33.34	5.12	0.88	23.69	422	0.04
						20	19.32	33.34	5.26	0.88	23.69	422	0.08
20b)	19.32	33.34	5.26	0.88	23.69	30	18.93	33.76	5.40	0.56	24.11	382	0.12
30	18.93	33.76	5.40	0.56	24.11	50	16.26	33.71	5.60	0.53	24.72	325	0.20
						75	15.14	33.67	5.80	0.34	24.94	305	0.27
48c)	16.38	33.71	5.57	0.57	24.69	100	14.63	33.62	5.68	0.64	25.01	299	0.35
						150	11.50	33.67	5.13	1.12	25.67	236	0.48
74b)	15.15	33.68	5.80	0.32	24.94	200	9.21	33.73	4.63	1.95	26.11	195	0.59
99	14.64	33.62	-	0.66	25.01	250	8.23	33.94	3.93	2.54	26.43	165	0.68
123	13.78	33.69	5.47	0.50	25.24	300	7.40	33.98	3.12	2.21	26.58	151	0.76
148	11.69	33.68	5.13	1.14	25.64	400	6.06	34.05	1.64	2.62	26.82	129	0.90
173	9.90	33.63	5.03	1.17	25.92	500	5.47	34.15	0.86	2.89	26.97	116	1.02
197	9.30	33.71	4.65	1.63	26.08	600	4.94	34.24	0.51	3.14	27.10	104	1.13
						700	4.52	34.32	0.38	3.34	27.21	94	1.23
199c)	9.21	33.75	4.66	2.13	26.13	800	4.21	34.38	0.39	3.57	27.29	86	1.32
						1000	3.68	34.47	0.55	3.60	27.42	75	1.48
238d)	8.42	33.92	4.11	2.71	26.38	1200	3.16	34.52	0.73	2.92	27.51	67	1.62
285	7.63	33.98	3.32	2.09	26.55								
296b)	7.58	33.97	3.30	2.25	26.55								
380d)	6.18	34.03	1.87	2.51	26.79								
474	5.63	34.13	0.99	2.92	26.93								
569	5.06	34.22	0.58	3.23	27.07								
592b)	5.02	34.23	0.54	2.77	27.08								

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OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m

(continued from preceding page)

664d)	4.66	34.29	0.40	3.42				27.17								
759	4.31	34.36	0.36	3.30				27.27								
952	3.82	34.45	-	3.95				27.39								
1145	3.29	34.51	0.68	2.98				27.49								
1440	2.74	34.56	0.97	3.77				27.58								

a) Third cast; wire angle, missing.
b) Fourth cast; wire angle, missing.
c) First cast; wire angle, 14°.
d) Second cast; wire angle, 21°.

BROWN BEAR; August 5, 1958; 1900 GCT; 32°05'N, 128°54'W; sounding, 4243 m; wind, 020°, force 5; weather, partly cloudy; sea, moderate.

0a)	20.09	33.58	4.98	0.51	0	8.13	2.25	23.68	0	20.09	33.58	4.98	0.51	23.68	423	0.00
10	20.09	33.58	5.14	0.93	0	8.13	2.24	23.68	10	20.09	33.58	5.14	0.93	23.68	423	0.04
20	19.66	33.92	5.32	0.64	0	8.15	2.25	24.05	20	19.66	33.92	5.32	0.64	24.05	388	0.08
29	18.08	33.94	5.54	0.43	0	8.18	2.25	24.46	30	18.08	33.94	5.40	0.46	24.46	349	0.12
									50	17.44	33.93	5.72	0.37	24.61	336	0.19
30b)	-	33.93	5.26	0.49	0	8.19	2.32		75	15.73	33.78	5.58	0.57	24.89	309	0.27
49	17.54	33.94	5.77	-	0	8.17	2.29	24.59	100	15.72	33.94	5.53	0.71	25.02	298	0.34
									150	12.48	33.79	5.17	0.77	25.58	245	0.48
50c)	17.35	33.92	5.68	0.37	0	8.17	2.29	24.62	200	9.32	33.70	4.35	1.57	26.07	199	0.59
74	15.72	33.77	5.58	0.55	0	8.17	2.25	24.89	250	8.38	33.89	3.31	2.03	26.37	171	0.68
99	15.72	33.94	5.53	0.73	0	8.17	2.26	25.02	300	7.65	33.99	2.67	2.41	26.55	154	0.76
									400	6.67	34.10	1.45	2.83	26.78	134	0.91
123b)	14.98	33.93	5.50	0.52	0	8.13	2.26	25.17	500	5.78	34.16	0.79	3.19	26.94	119	1.04
									600	5.16	34.24	0.49	3.37	27.08	106	1.15
124c)	14.90	33.90	5.51	0.46	0	8.14	2.22	25.17	700	4.63	34.32	0.36	3.13	27.20	95	1.25
									800	4.24	34.39	0.36	3.27	27.30	86	1.34
147b)	13.14	33.84	5.20	0.64	0	8.05	2.21	25.49	1000	3.72	34.48	0.58	3.30	27.42	75	1.50
									1200	3.28	34.53	0.81	2.59	27.51	68	1.64
148c)	12.56	33.78	5.25	0.78	0	8.06	2.22	25.55	1500	2.75	34.58	1.15	2.50	27.59	60	1.83
									2000	2.08	34.63	1.81	2.89	27.69	50	2.11
171a)	9.78	33.64	4.77	1.27	8	7.93	2.19	25.95	2500	1.75	34.67	2.27	3.01	27.75	45	2.35
194	9.30	33.70	4.42	1.59	7	7.90	2.20	26.07	3000	1.57	34.68	2.64	3.13	27.77	44	2.57
									4000	1.51	34.70	3.19	2.42	27.79	44	3.01

(continued on next page)

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
196b)	9.54	33.65	4.56	1.44	10	7.88	2.20	26.00								
242a)	8.52	33.87	3.40	1.95	26	7.75	2.22	26.33								
291	7.74	33.98	2.81	2.36	31	7.70	2.24	26.53								
387	6.82	34.09	1.57	2.80	49	7.59	2.28	26.75								
484	5.88	34.15	0.86	3.07	66	7.53	2.34	26.92								
581	5.28	34.23	0.52	3.47	75	7.48	2.33	27.05								
678	4.77	34.29	0.40	3.14	89	7.50	2.36	27.16								
683b)	4.66	34.31	0.36	3.10	94	7.52	2.38	27.19								
780	4.30	34.38	0.34	3.20	107	7.70	2.41	27.28								
974	3.78	34.47	0.55	3.44	119	7.51	2.41	27.41								
1167	3.34	34.52	0.78	2.62	130	7.58	2.45	27.49								
1459	2.82	34.57	1.09	2.45	139	7.60	2.45	27.58								
1954	2.12	34.63	1.74	2.66	153	7.59	2.45	27.69								
1988c)	2.08	34.63	1.81	3.09	158	7.61	2.46	27.69								
2485	1.76	34.67	2.26	3.00	160	7.66	2.46	27.75								
2975	1.58	34.68	2.62	3.16	165	7.67	2.46	27.77								
3468	1.50	34.69	2.96	2.69	157	7.73	2.47	27.78								
3968	1.51	34.70	3.20	2.44	155	7.76	2.46	27.79								
4068	1.50	34.70	3.17	2.39	154	7.72	2.46	27.79								

a) Third cast; wire angle, 10°.
b) First cast; wire angle, 10°.
c) Second cast; wire angle, 10°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; August 6, 1958; 2400 GCT; 34°13'N, 129°51'W; sounding, 4846 m; wind, 340°, force 6; weather, cloudy; sea, moderate.																
0a)	19.76	33.86	5.05	0.44				23.98	0	19.76	33.86	5.05	0.44	23.98	394	0.00
10	19.74	33.85	5.21	0.63				23.97	10	19.74	33.85	5.21	0.63	23.97	395	0.04
19	19.70	33.85	5.26	0.99				23.98	20	19.72	33.85	5.25	0.92	23.98	395	0.08
29	19.60	33.85	5.23	0.45				24.01	30	19.44	33.85	5.26	0.46	24.05	388	0.12
									50	17.06	33.89	5.63	0.56	24.67	330	0.19
50b)	17.06	33.89	5.63	0.56				24.67	75	15.97	33.90	5.67	0.54	24.93	306	0.27
74	16.00	33.91	5.67	0.53				24.93	100	15.06	33.83	5.59	0.70	25.08	292	0.34
99	15.10	33.83	5.60	0.71				25.07	150	11.85	33.78	5.20	1.22	25.69	234	0.48
123	13.84	33.85	5.33	0.70				25.35	200	9.84	33.78	4.96	1.39	26.05	201	0.58
									250	8.79	33.93	4.46	1.74	26.33	174	0.68
144a)	12.77	33.85	5.26	1.10				25.57	300	7.88	33.97	3.91	1.87	26.50	159	0.76
									400	6.30	33.98	2.53	2.25	26.73	138	0.91
148b)	11.51	33.74	5.15	1.19				25.72	500	5.27	34.06	1.37	2.93	26.92	120	1.04
									600	4.76	34.18	0.67	3.08	27.07	106	1.15
167a)	10.84	33.72	5.16	1.39				25.83	700	4.42	34.27	0.32	3.05	27.18	96	1.25
192	10.03	33.75	5.04	1.31				25.99	800	4.15	34.37	0.34	2.95	27.29	86	1.34
239	9.00	33.91	4.56	1.69				26.29	1000	3.54	34.46	0.47	3.33	27.43	74	1.50
287	8.12	33.97	4.09	1.89				26.47	1200	3.12	34.52	0.79	2.69	27.51	66	1.64
382	6.56	33.97	2.80	2.04				26.69								
478	5.41	34.03	1.56	2.88				26.88								
573	4.90	34.14	0.83	2.97				27.03								
590b)	4.76	34.18	0.72	3.16				27.07								
688	4.45	34.26	0.32	3.09				27.17								
786	4.20	34.36	0.34	2.87				27.28								
982	3.58	34.45	0.44	3.43				27.41								
1179	3.16	34.51	0.76	2.72				27.50								
1473	2.70	34.57	1.14	3.19				27.59								

a) Second cast; wire angle, 17°.
b) First cast; wire angle, 07°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; August 8, 1958; 0000 GCT; 36°25'N, 130°40'W; sounding, 4810 m; wind, 340°, force 4; weather, partly cloudy; sea, slight.																
0a)	19.36	33.33	4.92	0.44	0	8.11	2.25	23.68	0	19.36	33.33	4.92	0.44	23.68	423	0.00
									10	19.15	33.34	5.21	0.63	23.74	417	0.04
10b)	19.15	33.34	5.21	0.63	0	8.10	2.23	23.74	20	19.02	33.33	5.24	0.99	23.76	415	0.08
20	19.02	33.33	5.24	0.99	0	8.08	2.20	23.76	30	18.85	33.32	5.26	0.45	23.80	412	0.12
30	18.85	33.32	5.26	0.45	0	8.09	2.21	23.80	50	15.98	33.34	5.99	0.56	24.50	346	0.20
									75	13.40	33.39	5.94	0.53	25.09	290	0.28
50c)	15.98	33.34	5.99	0.56	0	8.02	2.20	24.50	100	12.98	33.42	6.40	0.70	25.19	281	0.35
75	13.40	33.39	5.94	0.53	0	8.03	2.19	25.09	150	9.77	33.60	5.10	1.16	25.92	212	0.48
99	12.96	33.41	6.45	0.71	0	8.04	2.22	25.19	200	8.98	33.88	4.70	1.31	26.27	180	0.57
124	12.50	33.55	5.45	0.70	0	8.00	2.22	25.39	250	8.40	33.96	4.22	1.69	26.42	166	0.66
148	9.86	33.58	5.11	1.19	0	7.91	2.20	25.89	300	7.46	33.98	3.49	1.89	26.57	152	0.74
									400	5.97	33.98	2.41	2.04	26.77	133	0.88
150b)	9.74	33.61	5.14	1.10	4	7.89	2.20	25.93	500	5.12	34.06	1.28	2.88	26.94	118	1.01
175	9.14	33.73	4.80	1.39	4	7.90	2.22	26.12	600	4.73	34.17	0.62	2.97	27.07	106	1.12
200	8.98	33.88	4.70	1.31	9	7.87	2.23	26.27	700	4.23	34.24	0.37	3.06	27.18	96	1.22
250	8.40	33.96	4.22	1.69	17	7.78	2.25	26.42	800	3.89	34.31	0.35	2.93	27.27	88	1.31
300	7.46	33.98	3.49	1.89	26	7.72	2.25	26.57	1000	3.32	34.41	0.35	3.36	27.41	76	1.48
400	5.97	33.98	2.41	2.04	46	7.60	2.30	26.77	1200	2.99	34.49	0.58	2.70	27.50	67	1.62
500	5.12	34.06	1.28	2.88	67	7.44	2.30	26.94								
593c)	4.78	34.17	0.64	3.16	83	7.41	2.34	27.06								
599b)	4.72	34.17	0.65	2.77	79	7.46	2.35	27.07								
692c)	4.26	34.23	0.37	3.09	98	7.40	2.37	27.17								
790	3.93	34.30	0.36	2.87	106	7.39	2.38	27.26								
988	3.34	34.41	0.34	3.43	126	7.33	2.40	27.40								
1183d)	3.02	34.48	0.56	2.72	134	7.40	2.43	27.49								
1481	2.60	34.56	1.04	3.19	143	7.45	2.43	27.59								

a) Third cast; wire angle, 05°.
b) Fourth cast; wire angle, 03°.
c) First cast; wire angle, 03°.
d) Second cast; wire angle, 12°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	SiO_3-Si µg at/L	pH	Alk. meq/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ cl/ton	ΔD dyn m
BROWN BEAR; August 9, 1958; 0000 GCT; 38°32'N, 131°27'W; sounding, 4810 m; wind, calm; weather, cloudy; sea, smooth.																
0a)	20.41	33.18	5.26	0.54				23.29	0	20.41	33.18	5.26	0.54	23.29	460	0.00
10	19.44	33.17	5.34	0.64				23.53	10	19.44	33.17	5.34	0.64	23.53	437	0.04
20	18.78	33.14	5.47	0.68				23.68	20	18.78	33.14	5.47	0.68	23.68	423	0.09
30	17.50	33.14	5.58	0.46				23.99	30	17.50	33.14	5.58	0.46	23.99	394	0.13
50	13.16	33.02	6.32	0.44				24.85	50	13.16	33.02	6.32	0.44	24.85	312	0.20
75	11.36	33.02	6.20	0.69				25.19	75	11.36	33.02	6.20	0.69	25.19	280	0.27
100	10.82	33.03	5.91	0.69				25.30	100	10.82	33.03	5.91	0.69	25.30	271	0.34
125	9.42	33.42	5.30	1.26				25.84	150	8.64	33.58	5.26	1.41	26.08	196	0.46
150	8.64	33.58	5.26	1.41				26.08	200	8.49	33.94	4.83	1.65	26.39	168	0.55
175	8.46	33.71	5.17	1.53				26.21	250	7.83	33.99	4.68	1.89	26.53	156	0.63
									300	7.14	33.97	3.80	2.09	26.61	148	0.71
175b)	8.64	33.78	5.02	1.60				26.24	400	5.69	33.98	2.33	2.72	26.81	130	0.85
200	8.49	33.94	4.83	1.65				26.39	500	4.96	34.04	1.38	2.87	26.94	118	0.97
250	7.83	33.99	4.68	1.89				26.53	600	4.56	34.15	0.68	3.15	27.07	106	1.08
300	7.14	33.97	3.80	2.09				26.61	700	4.16	34.23			27.18	96	1.18
400	5.69	33.98	2.33	2.72				26.81	800	3.86	34.29	0.35	2.98	27.26	89	1.28
500	4.96	34.04	1.38	2.87				26.94	1000	3.39	34.39	0.39	3.33	27.38	78	1.44
600	4.56	34.15	0.68	3.15				27.07	1200	3.02	34.47	0.52	3.50	27.48	69	1.59
700	4.16	34.23	-	-				27.18								
800	3.86	34.29	0.35	2.98				27.26								
1198a)	3.02	34.47	0.52	3.50				27.48								
1498	2.64	34.57	0.91	3.42				27.60								

a) Second cast; wire angle, 00°.
b) First cast; wire angle, 02°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; August 10, 1958; 0000 GCT; 40°35'N, 132°31'W; sounding, 3804 m; wind, 130°, force 5; weather, overcast; sea, slight.																
0a)	19.58	32.76	5.11	0.94	0	8.07	2.14	23.19	0	19.58	32.76	5.11	0.94	23.19	470	0.00
10	19.52	32.74	5.15	0.73	0	8.09	2.15	23.19	10	19.52	32.74	5.15	0.73	23.19	470	0.04
19	18.68	32.70	5.32	0.75	0	8.07	2.14	23.37	20	18.66	32.71	5.30	0.71	23.38	452	0.09
29	17.79	32.76	5.33	0.44	0	8.07	2.13	23.63	30	17.35	32.76	5.44	0.45	23.74	418	0.14
48	11.70	32.75	6.61	0.61	0	8.07	2.13	24.92	50	11.64	32.76	6.55	0.62	24.94	304	0.21
73	10.71	32.91	5.94	0.84	0	8.02	2.15	25.22	75	10.57	32.92	5.88	0.89	25.25	274	0.28
97	9.24	33.11	5.35	1.26	5	7.93	2.17	25.62	100	9.07	33.17	5.31	1.26	25.70	232	0.34
121	8.26	33.49	5.08	1.32	9	7.90	2.20	26.07	150	8.09	33.69	4.96	1.47	26.25	180	0.45
145	8.10	33.65	4.99	1.57	12	7.88	2.21	26.22	200	7.81	33.89	4.45	1.80	26.45	162	0.53
169	8.01	33.80	4.77	1.27	18	7.87	2.24	26.35	250	7.17	33.95	3.93	2.31	26.59	149	0.61
									300	6.42	33.95	3.20	2.37	26.69	140	0.68
169b)	8.04	33.81	4.84	1.35	19	7.86	2.23	26.36	400	5.34	33.98	2.04	2.74	26.85	126	0.82
193	7.88	33.87	4.49	1.41	21	7.76	2.24	26.43	500	4.66	34.07	1.21	3.05	27.00	112	0.93
									600	4.27	34.15	0.71	3.10	27.10	102	1.04
194a)	7.86	33.88	4.49	1.95	-	7.82	2.24	26.44	700	4.05	34.23	0.42	3.17	27.19	95	1.14
									800	3.81	34.31	0.31	3.30	27.28	87	1.23
241b)	7.32	33.95	4.08	2.32	27	7.73	2.25	26.57	1000	3.37	34.41	0.34	3.10	27.40	76	1.39
288	6.58	33.95	3.36	2.33	39	7.64	2.25	26.67	1200	2.95	34.48	0.52	3.09	27.50	68	1.54
384	5.47	33.97	2.21	2.67	59	7.54	2.26	26.83	1500	2.50	34.55	0.87	2.86	27.59	59	1.73
480	4.78	34.05	1.34	3.01	73	7.48	2.33	26.97	2000	1.94	34.61	1.54	3.12	27.69	50	2.00
578	4.31	34.13	0.80	3.14	88	7.41	2.35	27.08	2500	1.73	34.65	2.05	2.51	27.73	46	2.24
									3000	1.60	34.66	2.45	2.43	27.75	46	2.47
676a)	4.15	34.21	0.47	3.08	100	7.35	2.37	27.16								
676b)	4.10	-	0.47	-	-	7.36	2.36									
774	3.86	34.29	0.32	3.36	106	7.39	2.39	27.26								
972	3.44	34.40	0.32	3.08	103	7.38	2.41	27.39								
1171	3.00	34.47	0.49	3.14	105	7.38	2.41	27.48								
1464c)	2.54	34.54	0.82	2.88	-	7.39	2.45	27.58								
1470b)	2.56	34.54	0.81	2.72	135	7.41	2.44	27.58								

(continued on next page)

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m

(continued from preceding page)

1964c)	1.96	34.61	1.50	3.19	163	7.46	2.44	27.68								
2465	1.74	34.65	2.01	2.50	167	7.58	2.45	27.73								
2966	1.60	34.66	2.44	2.50	159	7.60	2.45	27.75								
3468	1.58	34.68	2.62	2.14	159	7.59	2.46	27.77								
3668	1.58	34.69	2.69	2.39	163	7.58	2.45	27.78								
3768	1.56	34.68	2.73	2.98	164	7.62	2.47	27.77								

a) Fourth cast; wire angle, 15°.
b) Second cast; wire angle, missing.
c) First cast; wire angle, 09°.

BROWN BEAR; August 11, 1958; 0500 GCT; 42°27'N, 134°58'W; sounding, 4279 m; wind, 250°, force 4; weather, cloudy; sea, slight.

0a)	19.50	32.81	5.06	-	23.24	0	19.50	32.81	5.06		23.24	464	0.00			
10	19.48	32.80	5.12	1.44	23.24	10	19.48	32.80	5.12	1.44	23.24	465	0.05			
20	18.88	32.85	5.24	0.69	23.43	20	18.88	32.85	5.24	0.69	23.43	447	0.09			
30	17.24	32.80	5.56	0.79	23.79	30	17.24	32.80	5.56	0.79	23.79	413	0.14			
50	12.21	32.74	6.48	0.74	24.82	50	12.21	32.74	6.48	0.74	24.82	315	0.21			
75	10.28	32.75	5.95	1.23	25.17	75	10.28	32.75	5.95	1.23	25.17	282	0.28			
100	9.39	32.99	5.45	1.25	25.51	100	9.39	32.99	5.45	1.25	25.51	250	0.35			
125	8.22	33.33	5.17	1.47	25.95	150	7.87	33.52	5.11	1.64	26.15	190	0.46			
150	7.87	33.52	5.11	1.64	26.15	200	7.58	33.86	4.77	1.73	26.46	161	0.55			
						250	7.03	33.92	4.29	2.02	26.59	150	0.63			
174b)	7.82	33.77	4.93	1.78	26.36	300	6.38	33.93	3.74	2.17	26.68	141	0.70			
						400	5.32	33.97	2.11	2.28	26.84	126	0.83			
175a)	7.86	33.74	4.96	1.67	26.33	500	4.69	34.04	1.35	2.96	26.97	114	0.95			
						600	4.26	34.14	0.68	3.15	27.10	103	1.06			
199c)	7.58	33.86	4.80	1.69	26.46	700	4.07	34.26	0.36	3.30	27.21	93	1.16			
						800	3.79	34.30	0.32	3.26	27.27	88	1.25			
200a)	7.58	33.86	4.74	1.77	26.46	1000	3.27	34.39	0.40	2.93	27.40	76	1.41			
						1200	2.91	34.46	0.44	3.41	27.48	68	1.56			

(continued on next page)

OBSERVED							COMP	INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	SiO_3-Si µg at/L	pH	Alk. meq/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ cl/ton	ΔD dyn m
249c)	7.04	33.92	4.30	2.02				26.58								
299	6.39	33.93	3.76	2.17				26.68								
398	5.33	33.97	2.13	2.26				26.84								
498	4.70	34.04	1.37	2.96				26.97								
598	4.26	34.14	0.69	3.14				27.10								
698	4.08	34.26	0.36	3.30				27.21								
797	3.80	34.30	0.32	3.27				27.27								
997	3.28	34.39	0.40	2.92				27.39								
1196	2.92	34.46	0.44	3.41				27.48								
1497	2.41	34.54	0.72	3.23				27.59								

a) Fourth cast; wire angle, 02°.
b) First cast; wire angle, 07°.
c) Third cast; wire angle, 05°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	SiO_3-Si µg at/L	pH	Alk. meq/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ cl/ton	ΔD dyn m
BROWN BEAR; August 12, 1958; 1100 GCT; 44°15'N, 137°37'W; sounding, 4115 m; wind, 230°, force 5; weather, intermittent heavy rain; sea, moderate.																
0a)	18.68	32.81	4.80	0.67	0	8.16	2.20	23.45	0	18.68	32.81	4.80	0.67	23.45	444	0.00
10	18.66	32.80	5.05	0.73	0	8.12	2.20	23.45	10	18.66	32.80	5.05	0.73	23.45	445	0.04
20	18.64	32.85	5.15	0.58	0	8.12	2.19	23.49	20	18.64	32.85	5.15	0.58	23.49	441	0.09
30	14.50	32.80	6.05	0.54	0	8.13	2.18	24.41	30	14.50	32.80	6.05	0.54	24.41	354	0.13
50	10.80	32.74	6.40	0.63	0	8.10	2.16	25.07	50	10.80	32.74	6.40	0.63	25.07	291	0.19
75	9.55	32.75	6.15	0.87	0	8.05	2.18	25.29	75	9.55	32.75	6.15	0.87	25.29	270	0.26
100	8.95	32.99	6.05	0.98	0	8.01	2.18	25.58	100	8.95	32.99	6.05	0.98	25.58	244	0.33
125	7.77	33.33	5.24	1.23	10	7.93	2.24	26.02	150	7.72	33.52	5.12	1.38	26.17	187	0.43
150	7.72	33.52	5.12	1.38	10	7.93	2.24	26.17	200	7.43	33.86	4.86	1.60	26.48	159	0.52
175	7.72	33.74	4.98	-	17	7.92	2.28	26.35	250	6.79	33.92	4.34	1.68	26.62	146	0.60
175b)	7.56	33.77	5.03	1.60	20	7.83	2.25	26.39	300	5.95	33.93	3.50	1.66	26.74	136	0.67
200a)	7.57	33.86	4.95	1.61	18	7.88	2.25	26.46	400	4.88	33.97	2.09	2.32	26.89	121	0.80
200b)	7.29	33.86	4.77	1.60	24	7.83	2.26	26.50	500	4.26	34.04	1.30	2.44	27.02	110	0.91
250a)	6.92	33.92	4.40	1.70	28	7.85	2.26	26.60	600	3.87	34.16	0.72	2.51	27.15	97	1.01
250b)	6.66	33.92	4.28	1.66	-	7.75	2.28	26.64	700	3.57	34.27	0.48	2.61	27.27	86	1.11
299	5.96	33.93	3.52	1.65	41	7.70	2.28	26.73	800	3.44	34.31	0.43	2.70	27.32	83	1.19
398	4.90	33.97	2.11	2.32	59	7.55	2.31	26.89	1000	3.08	34.40	0.39	2.60	27.42	74	1.35
495	4.28	34.04	1.34	2.44	74	7.55	2.37	27.02	1200	2.73	34.47	0.43	2.95	27.51	66	1.49
588	3.93	34.14	0.77	2.51	83	7.48	2.38	27.13	1500	2.37	34.53	0.62	2.95	27.59	59	1.67
686	3.58	34.26	0.49	2.58	97	7.43	2.39	27.26	2000	1.93	34.61	1.36	3.46	27.69	50	1.94
782	3.47	34.30	0.44	2.74	106	7.40	2.39	27.30	2500	1.71	34.64	1.96	3.43	27.73	47	2.19
978	3.12	34.39	0.39	2.54	125	7.42	2.43	27.41	3000	1.55	34.66	2.52	3.50	27.76	45	2.42
1178	2.76	34.46	0.43	2.96	128	7.40	2.43	27.50								
1476	2.38	34.54	0.58	2.68	146	7.50	2.45	27.59								
1484c)	2.40	34.52	0.60	3.17	145	7.40	2.44	27.58								
1978	1.94	34.61	1.33	3.47	154	7.45	2.46	27.69								
2473	1.72	34.64	1.92	3.39	155	7.48	2.46	27.73								
2969	1.56	34.66	2.50	3.59	146	7.57	2.46	27.75								
3465	1.50	34.68	2.80	2.64	150	7.60	2.46	27.77								
3664	1.51	34.68	2.87	2.60	153	7.63	2.47	27.77								
3862	1.51	34.69	2.90	2.78	165	7.63	2.46	27.78								
3961	1.52	34.69	2.90	1.10	161	7.67	2.47	27.78								

a) Third cast; wire angle, 08°.
b) Second cast; wire angle, 10°.
c) First cast; wire angle, 10°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; August 13, 1958; 0300 GCT; 45°32'N, 139°17'W; sounding, 4270 m; wind, 240°, force 5; weather, moderate to heavy rain showers; sea, slight.																
0a)	17.58	32.86	5.20	0.65				23.76	0	17.58	32.86	5.20	0.65	23.76	415	0.00
10	17.56	32.86	5.30	0.59				23.76	10	17.56	32.86	5.30	0.59	23.76	415	0.04
20	17.52	32.86	4.20	0.65				23.77	20	17.52	32.86	4.20	0.65	23.77	414	0.08
29	13.80	32.83	6.54	0.65				24.57	30	13.53	32.83	6.56	0.66	24.63	333	0.12
48	9.88	32.88	6.69	0.85				25.34	50	9.77	32.89	6.62	0.87	25.37	263	0.18
72	8.74	32.95	6.09	1.03				25.58	75	8.63	32.92	6.12	1.00	25.57	244	0.24
96	8.04	32.97	5.99	0.98				25.70	100	7.98	33.10	5.79	1.09	25.81	221	0.30
120	7.72	33.58	5.13	1.42				26.22	150	7.49	33.79	5.11	1.39	26.42	164	0.40
144	7.53	33.77	5.11	1.40				26.40	200	6.86	33.87	4.79	1.70	26.57	150	0.48
169	7.21	33.83	5.02	1.40				26.49	250	6.29	33.90	4.31	1.94	26.67	142	0.55
									300	5.79	33.91	3.71	2.30	26.74	135	0.62
173b)	7.34	33.83	5.04	1.50				26.47	400	4.85	33.97	2.33	2.74	26.90	120	0.74
									500	4.28	34.05	1.38	2.58	27.02	109	0.86
191a)	6.90	33.87	4.79	1.64				26.56	600	3.89	34.14	0.84	2.70	27.14	99	0.96
									700	3.66	34.22	0.60	2.53	27.22	91	1.06
197b)	6.98	33.86	4.89	1.74				26.55	800	3.45	34.28	0.40	2.65	27.29	85	1.15
									1000	3.05	34.37	0.33	2.42	27.40	75	1.31
238a)	6.28	33.90	4.39	1.77				26.67	1200	2.77	34.43	0.40	3.37	27.47	69	1.45
247b)	6.46	33.90	4.40	1.97				26.65								
296	5.84	33.91	3.77	2.27				26.73								
395	4.88	33.97	2.39	2.76				26.89								
493	4.32	34.04	1.43	2.55				27.01								
582	3.94	34.13	0.88	2.78				27.12								
691	3.68	34.21	0.62	2.50				27.21								
789	3.48	34.27	0.41	2.71				27.28								
986	3.07	34.37	0.32	2.32				27.40								
1184	2.79	34.43	0.39	3.33				27.47								
1483	2.40	34.53	0.48	3.22				27.58								

a) Second cast; wire angle, 17°.
b) First cast; wire angle, 09°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	SiO_3-Si µg at/L	pH	Alk. meq/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ cl/ton	ΔD dyn m
BROWN BEAR; August 14, 1958; 0200 GCT; 46°52'N, 141°01'W; sounding, 4252 m; wind, 240°, force 5; weather, moderate to heavy rain showers; sea, moderate.																
0a)	16.23	32.87	5.35	1.33	0	8.11	2.16	24.08	0	16.23	32.87	5.35	1.33	24.08	384	0.00
10	16.22	32.87	5.40	0.93	0	8.12	2.17	24.08	10	16.22	32.87	5.40	0.93	24.08	384	0.04
20	16.16	32.88	5.42	0.99	0	8.12	2.18	24.10	20	16.16	32.88	5.42	0.99	24.10	383	0.08
30	12.81	32.78	6.54	1.07	0	8.10	2.17	24.73	30	12.81	32.78	6.54	1.07	24.73	323	0.11
50	9.07	32.79	6.61	1.38	0	8.02	2.16	25.40	50	9.07	32.79	6.61	1.38	25.40	260	0.17
75	8.42	32.98	6.45	1.46	0	8.01	2.18	25.65	75	8.42	32.98	6.45	1.46	25.65	236	0.23
99	7.73	33.02	6.10	1.38	6	7.99	2.18	25.78	100	7.73	33.05	6.05	1.36	25.80	222	0.29
124	7.66	33.61	5.24	1.28	15	7.90	2.24	26.25	150	7.39	33.83	5.08	1.94	26.46	160	0.38
149	7.40	33.83	5.08	1.94	20	7.90	2.26	26.46	200	6.92	33.88	4.85	1.97	26.57	150	0.46
									250	6.13	33.89	4.42	2.11	26.68	140	0.53
169b)	7.36	33.82	5.14	1.83	21	7.86	2.25	26.46	300	5.59	33.90	3.80	2.33	26.76	133	0.60
									400	4.73	33.98	2.23	2.88	26.92	118	0.73
174a)	7.08	33.87	4.83	1.97	25	7.90	2.26	26.54	500	4.24	34.06	1.44	3.12	27.04	108	0.84
									600	3.91	34.14	0.96	2.90	27.13	99	0.94
193b)	7.10	33.87	4.98	1.88	26	7.83	2.26	26.54	700	3.63	34.22	0.65	2.73	27.23	91	1.04
									800	3.39	34.28	0.50	2.81	27.30	84	1.13
198a)	6.90	33.89	4.77	2.05	27	7.86	2.25	26.58	1000	3.00	34.38	0.36	2.73	27.41	74	1.29
									1200	2.73	34.44	0.37	2.97	27.48	68	1.43
241b)	6.40	33.90	4.55	1.99	35	7.80	2.25	26.65								
247a)	6.01	33.88	4.37	2.21	38	7.80	2.26	26.69								
288b)	5.72	33.89	4.05	2.22	44	7.75	2.28	26.73								
382	4.85	33.96	2.43	2.85	64	7.60	2.30	26.89								
477	4.32	34.04	1.56	3.02	82	7.54	2.35	27.01								
572	4.01	34.11	1.10	3.16	92	7.47	2.36	27.10								
668	3.70	34.20	0.71	2.59	106	7.43	2.38	27.20								
764	3.48	34.26	0.54	2.90	116	7.47	2.42	27.27								
959	3.06	34.36	0.37	2.64	130	7.46	2.43	27.39								
1151	2.79	34.43	0.36	2.95	135	7.41	2.43	27.47								
1449	2.42	34.50	0.45	2.76	150	7.47	-	27.56								

a) Second cast; wire angle, 10°.
b) First cast; wire angle, 17°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; August 15, 1958; 0500 GCT; 48°16'N, 142°42'W; sounding, 4206 m; wind, 230°, force 4; weather, cloudy; sea, moderate.																
0a)	14.34	32.82	5.72	0.92	0	8.09	2.20	24.45	0	14.34	32.82	5.72	0.92	24.45	349	0.00
10	14.36	32.82	5.90	1.04	0	8.07	2.18	24.45	10	14.36	32.82	5.90	1.04	24.45	349	0.04
20	14.31	32.83	5.82	0.80	0	8.09	2.18	24.47	20	14.31	32.83	5.82	0.80	24.47	348	0.07
30	13.79	32.82	5.94	0.78	0	8.09	2.18	24.57	30	13.79	32.82	5.94	0.78	24.57	338	0.10
50	8.36	32.80	6.79	1.09	5	8.01	2.18	25.52	50	8.36	32.80	6.79	1.09	25.52	248	0.16
74	7.90	32.88	6.62	1.27	6	8.00	2.20	25.65	75	7.87	32.88	6.62	1.27	25.65	236	0.22
98	7.25	32.89	6.48	1.33	10	7.98	2.19	25.75	100	7.22	32.88	6.48	1.32	25.74	227	0.28
123	6.92	32.99	6.23	1.35	14	7.96	2.21	25.87	150	6.56	33.51	5.47	1.74	26.33	173	0.38
148	6.57	33.49	5.50	1.75	25	7.88	2.25	26.31	200	5.80	33.75	5.05	1.76	26.61	146	0.46
									250	5.07	33.80	4.43	2.11	26.74	134	0.53
168b)	6.42	33.68	5.26	1.63	26	7.83	2.27	26.48	300	4.52	33.83	3.51	2.45	26.82	126	0.60
									400	4.30	33.99	1.99	2.82	26.97	113	0.72
172a)	6.30	33.70	5.22	1.70	29	7.85	2.28	26.51	500	4.06	34.08	1.24	3.06	27.07	104	0.83
									600	3.79	34.17	0.75	3.12	27.17	96	0.93
193b)	5.84	33.71	5.08	1.62	29	7.82	2.28	26.58	700	3.56	34.24	0.62	3.19	27.25	89	1.02
									800	3.36	34.28	0.60	3.11	27.30	84	1.10
196a)	5.94	33.77	5.11	1.81	31	7.80	2.26	26.61	1000	2.99	34.37	0.42	3.00	27.41	75	1.26
									1200	2.68	34.45	0.46	3.41	27.50	67	1.40
241b)	5.10	33.79	4.60	2.15	39	7.73	2.28	26.73	1500	2.33	34.52	0.64	3.37	27.58	59	1.59
									2000	1.96	34.59	1.25	3.24	27.67	52	1.87
246a)	5.24	33.80	4.48	1.96	42	7.79	2.29	26.72	2500	1.72	34.64	1.97	3.09	27.73	47	2.12
									3000	1.57	34.67	2.51	2.94	27.76	44	2.34
289b)	4.55	33.81	3.74	2.40	48	7.65	2.29	26.80	4000	1.50	34.70	3.13	2.75	27.79	44	2.79
384	4.33	33.97	2.14	2.76	66	7.53	2.32	26.96								
479	4.12	34.07	1.37	3.03	78	7.52	2.38	27.06								
573	3.86	34.14	0.87	3.12	100	7.47	2.38	27.14								
670	3.62	34.22	0.57	3.14	108	7.42	2.40	27.23								
764	3.44	34.27	0.67	3.24	116	7.47	2.44	27.28								
958	3.06	34.35	0.41	2.87	129	7.44	2.42	27.38								
1152	2.76	34.43	0.46	3.35	137	7.42	2.43	27.47								
1448	2.36	34.51	0.58	3.45	150	7.43	2.45	27.57								

(continued on next page)

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m

(continued from preceding page)

1596c)	2.26	34.53	0.75	3.25	151	7.40	2.46	27.60
2094	1.90	34.60	1.37	3.22	159	7.49	2.46	27.68
2593	1.69	34.65	2.09	3.06	173	7.52	2.46	27.74
3094	1.55	34.67	2.60	2.93	160	7.62	2.46	27.76
3592	1.50	34.69	2.98	2.96	157	7.64	2.46	27.78
3891	1.50	34.70	3.05	2.28	163	7.67	2.47	27.79
4090	1.51	34.70	3.14	2.71	160	7.67	2.46	27.79
4193	1.52	34.70	3.08	2.19	161	7.66	2.47	27.79

a) Fifth cast; wire angle, 10°.
b) Fourth cast; wire angle, 15°.
c) Third cast; wire angle, missing.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; August 15, 1958; 2200 GCT; 48°04'N, 140°29'W; sounding, 4151 m; wind, 220°, force 3; weather, cloudy; sea, slight.																
0a)	15.23	32.77	5.82	0.92				24.23	0	15.23	32.77	5.82	0.92	24.23	370	0.00
10	15.14	32.77	5.87	0.85				24.25	10	15.14	32.77	5.87	0.85	24.25	369	0.04
20	15.08	32.77	5.84	1.10				24.26	20	15.08	32.77	5.84	1.10	24.26	368	0.07
30	15.10	32.77	5.82	1.07				24.25	30	15.10	32.77	5.82	1.07	24.25	368	0.11
50	8.66	32.82	7.12	1.12				25.49	50	8.66	32.82	7.12	1.12	25.49	251	0.17
75	7.86	32.83	6.65	1.39				25.61	75	7.86	32.83	6.65	1.39	25.61	240	0.23
100	7.32	32.87	6.44	1.35				25.72	100	7.32	32.87	6.44	1.35	25.72	230	0.29
125	6.82	33.27	5.82	1.83				26.10	150	6.34	33.59	5.53	2.18	26.42	164	0.39
150	6.34	33.59	5.53	2.18				26.42	200	5.78	33.79	4.95	2.17	26.65	143	0.47
									250	5.27	33.86	4.07	2.51	26.76	132	0.54
170b)	6.02	33.70	5.32	2.12				26.55	300	4.86	33.90	3.16	2.93	26.84	125	0.60
									400	4.37	33.99	1.95	3.12	26.97	114	0.72
175a)	5.96	33.71	5.30	1.90				26.56	500	4.04	34.08	1.17	3.28	27.07	104	0.83
									600	3.75	34.16	0.80	3.28	27.17	96	0.93
194b)	5.80	33.78	5.04	2.16				26.64	700	3.54	34.24	0.62	3.30	27.25	88	1.02
									800	3.36	34.30	0.51	3.24	27.32	83	1.11
200a)	5.82	33.79	4.96	2.15				26.64	1000	2.97	34.39	0.45	3.13	27.42	73	1.26
									1200	2.69	34.45	0.47	3.68	27.50	67	1.40
243b)	5.34	33.86	4.18	2.57				26.75								
250a)	5.28	33.86	4.12	2.35				26.76								
291b)	4.91	33.89	3.29	2.91				26.83								
387	4.41	33.98	2.09	3.10				26.95								
482	4.10	34.06	1.27	3.24				27.05								
576	3.82	34.14	0.85	3.35				27.14								
671	3.58	34.22	0.67	3.20				27.23								
766	3.44	34.28	0.53	3.43				27.29								
959	3.03	34.37	0.45	2.89				27.40								
1152	2.75	34.44	0.46	3.64				27.48								
1446	2.40	34.50	0.57	3.02				27.56								

a) Second cast; wire angle, missing.
b) First cast; wire angle, 12°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	SiO_3-Si µg at/L	pH	Alk. meq/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ cl/ton	ΔD dyn m
BROWN BEAR; August 16, 1958; 1500 GCT; 48°14'N, 138°11'W; sounding, 4005 m; wind, 270°, force 3; weather, partly cloudy; sea, slight.																
0a)	15.74	32.58	5.58	0.59	0	8.10	2.25	23.97	0	15.74	32.58	5.58	0.59	23.97	395	0.00
10	15.72	32.62	5.61	0.69	0	8.08	2.25	24.00	10	15.72	32.62	5.61	0.69	24.00	392	0.04
20	15.68	32.58	5.69	0.76	0	8.08	2.24	23.98	20	15.68	32.58	5.69	0.76	23.98	394	0.08
30	14.68	32.63	5.95	0.62	0	8.08	2.24	24.24	30	14.68	32.63	5.95	0.62	24.24	370	0.12
50	9.08	32.53	7.14	0.83	0	8.02	2.23	25.20	50	9.08	32.53	7.14	0.83	25.20	279	0.18
75	7.67	32.61	6.40	1.24	6	7.98	2.25	25.47	75	7.67	32.61	6.40	1.24	25.47	253	0.25
100	6.79	32.87	5.87	1.49	15	7.90	2.25	25.79	100	6.79	32.87	5.87	1.49	25.79	223	0.31
125	6.53	33.65	2.88	2.39	41	7.56	2.31	26.44	150	6.62	33.88	1.72	2.86	26.61	146	0.40
150	6.62	33.88	1.72	2.86	51	7.58	2.34	26.61	200	6.45	33.95	1.42	2.91	26.69	139	0.47
									250	6.19	33.98	1.38	2.85	26.74	134	0.54
171b)	6.60	33.91	1.47	2.66	52	7.57	2.35	26.64	300	5.97	33.98	1.32	2.80	26.77	132	0.60
									400	5.45	34.03	1.19	2.90	26.88	123	0.73
175a)	6.54	33.92	1.50	2.56	50	7.50	2.34	26.65	500	4.89	34.08	0.94	2.78	26.98	114	0.85
									600	4.35	34.14	0.59	2.57	27.09	104	0.96
195b)	6.50	33.95	1.44	2.78	54	7.53	2.35	26.68	700	4.01	34.21	0.47	2.59	27.18	96	1.06
									800	3.72	34.27	0.47	2.75	27.26	89	1.15
200a)	6.43	33.95	1.41	3.04	53	7.49	2.32	26.69	1000	3.26	34.36	0.30	2.60	27.37	78	1.32
									1200	2.88	34.45	0.43	3.37	27.48	69	1.47
244b)	6.26	33.97	1.39	2.86	56	7.44	2.31	26.73								
250a)	6.14	33.98	1.36	2.85	54	7.50	2.34	26.75								
293b)	6.01	33.98	1.33	2.78	58	7.49	2.33	26.77								
389	5.50	34.02	1.21	2.91	67	7.49	2.35	26.86								
485	5.00	34.07	1.00	2.80	78	7.53	2.40	26.96								
582	4.42	34.13	0.65	2.65	90	7.48	2.40	27.07								
679	4.08	34.19	0.44	2.46	102	7.38	2.41	27.16								
776	3.78	34.26	0.52	2.89	113	7.43	2.41	27.24								
971	3.32	34.35	0.28	2.40	126	7.44	2.44	27.36								
1167	2.94	34.44	0.41	3.32	141	7.40	2.45	27.47								
1466	2.44	34.53	0.63	2.69	156	7.52	2.45	27.58								

a) Second cast; wire angle, 05°.
b) First cast; wire angle, 08°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; August 17, 1958; 0800 GCT; 48°17'N, 135°18'W; sounding, 3914 m; wind, calm; weather, clear; sea, calm.																
0a)	17.06	32.60	5.53	0.56				23.68	0	17.06	32.60	5.53	0.56	23.68	422	0.00
10	16.84	32.59	5.63	0.56				23.73	10	16.84	32.59	5.63	0.56	23.73	418	0.04
20	14.16	32.58	6.81	0.37				24.31	20	14.16	32.58	6.81	0.37	24.31	363	0.08
30	10.33	32.59	7.43	0.71				25.04	30	10.33	32.59	7.43	0.71	25.04	294	0.11
50	8.30	32.63	6.73	0.95				25.39	50	8.30	32.63	6.73	0.95	25.39	260	0.17
75	7.80	32.69	7.50	1.11				25.51	75	7.80	32.69	7.50	1.11	25.51	249	0.23
100	7.22	32.73	6.37	1.15				25.63	100	7.22	32.73	6.37	1.15	25.63	239	0.29
125	6.68	32.94	5.97	1.43				25.86	150	6.23	33.28	5.42	1.67	26.19	186	0.40
150	6.23	33.28	5.42	1.67				26.19	200	5.43	33.72	4.29	2.23	26.63	144	0.48
									250	5.30	33.88	3.24	2.66	26.78	131	0.55
173b)	5.52	33.63	4.64	2.01				26.55	300	4.90	33.92	2.29	2.81	26.85	124	0.62
									400	4.40	34.03	1.27	3.03	27.00	111	0.73
175a)	5.66	33.50	4.97	1.92				26.43	500	4.10	34.12	0.80	3.12	27.10	102	0.84
									600	3.90	34.19	0.53	3.26	27.17	95	0.94
198b)	5.44	33.74	4.19	2.29				26.65	700	3.59	34.25	0.53	3.44	27.25	88	1.03
									800	3.39	34.31	0.43	3.37	27.32	82	1.11
200a)	5.42	33.69	4.63	2.14				26.61	1000	3.06	34.40	0.38	2.94	27.42	73	1.27
									1200	2.77	34.47	0.47	3.39	27.50	66	1.41
246b)	5.28	33.87	3.48	2.73				26.77								
250a)	5.37	33.88	3.08	2.57				26.77								
296b)	4.92	33.92	2.34	2.80				26.85								
394	4.42	34.02	1.30	3.02				26.99								
493	4.11	34.11	0.83	3.12				27.09								
591	3.94	34.19	0.52	3.23				27.17								
690	3.61	34.24	0.54	3.43				27.24								
788	3.41	34.30	0.44	3.43				27.31								
985	3.08	34.39	0.38	2.88				27.41								
1183	2.80	34.46	0.46	3.37				27.49								
1478	2.34	34.53	0.71	3.10				27.59								

a) Second cast; wire angle, 03°.
b) First cast; wire angle, 02°.

OBSERVED									INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	SiO_3-Si µg at/L	pH	Alk. meq/L	COMP σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ cl/ton	ΔD dyn m
BROWN BEAR; August 18, 1958; 0200 GCT; 48°21'N, 132°42'W; sounding, 4279 m; wind, calm; weather, partly cloudy; sea, calm.																
0a)	18.48	32.42	5.31	0.39	0	8.19	2.18	23.20	0	18.48	32.42	5.31	0.39	23.20	468	0.00
10	17.82	32.42	5.40	0.37	0	8.19	2.18	23.36	10	17.82	32.42	5.40	0.37	23.36	453	0.05
20	17.70	32.42	5.40	0.40	0	8.19	2.20	23.39	20	17.70	32.42	5.40	0.40	23.39	450	0.09
30	-	32.44	5.52	0.45	0	8.20	2.20		30	16.90	32.44	5.52	0.45	23.60	431	0.14
50	9.16	32.53	6.54	0.96	0	8.08	2.20	25.18	50	9.16	32.53	6.54	0.96	25.18	280	0.21
75	8.00	32.56	6.29	1.32	0	8.06	2.22	25.38	75	8.00	32.56	6.29	1.32	25.38	262	0.27
100	7.23	32.78	5.84	1.42	10	8.00	2.23	25.66	100	7.23	32.78	5.84	1.42	25.66	235	0.34
125b)	6.78	32.98	5.60	1.60	17	7.92	2.25	25.88	150	6.24	33.49	5.11	1.98	26.35	170	0.44
125a)	6.44	33.18	5.43	1.80	20	7.93	2.26	26.08	200	6.35	33.81	4.40	2.10	26.59	148	0.52
150	6.24	33.49	5.11	1.98	23	7.92	2.28	26.35	250	5.96	33.90	3.38	2.13	26.71	137	0.59
175	6.39	33.72	4.59	1.86	30	7.89	2.29	26.51	300	5.39	33.92	2.96	2.55	26.80	130	0.66
200b)	6.36	33.80	4.50	2.15	27	7.83	2.31	26.58	400	4.66	33.98	1.88	3.05	26.93	118	0.78
200a)	6.34	33.82	4.30	2.06	-	7.87	2.30	26.60	500	4.23	34.07	0.99	3.15	27.05	107	0.89
250b)	6.02	33.90	3.47	2.32	38	7.73	2.33	26.70	600	4.05	34.16	0.62	2.98	27.14	99	0.99
251a)	5.90	33.91	3.29	1.94	45	7.76	2.32	26.73	700	3.81	34.24	0.45	2.75	27.22	91	1.09
295c)	5.43	33.92	3.02	2.51	48	7.70	2.33	26.79	800	3.60	34.31	0.34	2.74	27.30	85	1.18
396	4.68	33.98	1.93	3.04	70	7.60	2.35	26.93	1000	3.23	34.40	0.34	2.79	27.41	75	1.34
495	4.24	34.07	1.02	3.16	88	7.51	2.37	27.04	1200	2.93	34.46	0.40	3.34	27.48	69	1.48
593	4.07	34.15	0.63	3.01	93	7.50	2.39	27.13								
693	3.83	34.23	0.46	2.75	105	7.47	2.40	27.21								
792	3.62	34.31	0.34	2.75	115	7.48	2.43	27.30								
991	3.24	34.40	0.34	2.75	125	7.53	2.44	27.41								
1190	2.95	34.46	0.39	3.33	138	7.51	2.44	27.48								
1490	2.42	34.52	0.65	2.80	154	7.58	2.46	27.57								

a) Third cast; wire angle, 00°.
b) First cast; wire angle, 00°.
c) Second cast; wire angle, 00°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; August 18, 1958; 2000 GCT; 48°25'N, 130°09'W; sounding, 2012 m; wind, 240°, force 3; weather, cloudy; sea, smooth.																
0a)	17.92	32.34	5.29	0.53				23.28	0	17.92	32.34	5.29	0.53	23.28	461	0.00
10	17.80	32.33	5.35	0.66				23.30	10	17.80	32.33	5.35	0.66	23.30	459	0.05
20	17.78	32.34	5.41	0.69				23.31	20	17.78	32.34	5.41	0.69	23.31	458	0.09
30	16.98	32.37	5.57	0.87				23.53	30	16.98	32.37	5.57	0.87	23.53	438	0.14
50	14.78	32.41	6.00	0.57				24.05	50	14.78	32.41	6.00	0.57	24.05	389	0.22
75	9.33	32.47	6.18	0.86				25.11	75	9.33	32.47	6.18	0.86	25.11	288	0.30
100	8.14	32.66	5.71	1.24				25.44	100	8.14	32.66	5.71	1.24	25.44	256	0.37
125	7.26	33.04	5.14	1.65				25.86	150	7.10	33.31	4.60	1.85	26.10	194	0.49
150	7.10	33.31	4.60	1.85				26.10	200	6.95	33.87	2.70	2.46	26.56	152	0.57
									250	6.56	33.96	1.99	2.71	26.68	140	0.65
172b)	7.06	33.78	3.26	2.28				26.47	300	5.94	34.00	1.65	2.92	26.79	130	0.71
									400	5.38	34.04	1.17	3.25	26.89	122	0.84
175a)	7.06	33.68	3.47	2.16				26.39	500	4.74	34.08	0.95	3.33	27.00	112	0.96
									600	4.37	34.14	0.63	3.33	27.09	104	1.06
196b)	6.92	33.88	2.56	2.58				26.57	700	4.20	34.22	0.41	3.42	27.17	97	1.17
									800	3.99	34.29	0.34	3.44	27.24	90	1.26
200a)	7.00	33.83	2.93	2.32				26.52	1000	3.45	34.39	0.35	3.21	27.38	78	1.43
									1200	2.99	34.46	0.45	3.42	27.48	69	1.58
245b)	6.52	33.96	2.05	2.82				26.69								
250a)	6.66	33.96	1.96	2.59				26.67								
292b)	5.98	34.00	1.71	2.88				26.79								
389	5.46	34.04	1.18	3.23				26.88								
486	4.82	34.07	1.00	3.33				26.98								
584	4.40	34.13	0.69	3.33				27.07								
681	4.23	34.21	0.43	3.38				27.16								
778	4.06	34.28	0.35	3.51				27.23								
973	3.52	34.38	0.34	3.16				27.36								
1168	3.06	34.45	0.43	3.41				27.46								
1464	2.52	34.53	0.69	3.14				27.57								

a) Second cast; wire angle, 09°.
b) First cast; wire angle, 12°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	SiO_3-Si µg at/L	pH	Alk. meq/L	σ_t g/L	Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ cl/ton	ΔD dyn m
BROWN BEAR; August 19, 1958; 1200 GCT; 48°28'N, 127°33'W; sounding, 2566 m; wind, 280°, force 3; weather, cloudy; sea, slight.																
0a)	15.43	32.07	5.73	0.45	0	8.20	2.18	23.65	0	15.43	32.07	5.73	0.45	23.65	426	0.00
10	15.36	32.08	5.82	0.59	0	8.20	2.18	23.67	10	15.36	32.08	5.82	0.59	23.67	424	0.04
19	15.16	32.11	5.72	0.48	0	8.20	2.18	23.73	20	14.67	32.14	5.76	0.52	23.86	406	0.08
29	11.12	32.37	6.00	0.88	0	8.11	2.20	24.73	30	10.97	32.37	5.97	0.93	24.76	320	0.12
49	8.80	32.51	5.49	1.55	5	8.03	2.17	25.22	50	8.76	32.52	5.48	1.54	25.24	275	0.18
73	7.94	32.81	5.17	1.48	12	7.99	2.20	25.59	75	7.92	32.85	5.13	1.48	25.62	239	0.24
98	7.53	33.25	4.59	1.57	21	7.93	2.25	25.99	100	7.46	33.27	4.52	1.60	26.02	202	0.30
122	6.89	33.49	3.98	1.80	28	7.85	2.28	26.27	150	6.68	33.69	3.97	1.98	26.45	161	0.39
146	6.72	33.66	4.00	1.82	34	7.88	2.29	26.42	200	6.27	33.92	2.91	2.56	26.69	139	0.46
170	6.50	33.79	3.76	1.87	37	7.82	2.29	26.55	250	5.87	33.96	2.31	2.77	26.77	132	0.53
									300	5.45	33.97	1.90	2.79	26.83	126	0.60
172b)	6.48	33.85	3.56	2.30	41	7.80	2.30	26.60	400	5.06	34.07	1.12	3.07	26.95	116	0.72
196	6.30	33.91	2.97	2.53	46	7.74	2.31	26.68	500	4.69	34.15	0.65	3.19	27.06	106	0.83
244	5.94	33.96	2.36	2.78	56	7.66	2.32	26.76	600	4.41	34.20	0.49	3.30	27.13	100	0.93
293	5.48	33.96	1.97	2.77	63	7.64	2.32	26.82	700	4.13	34.25	0.38	3.28	27.20	94	1.03
390	5.10	34.06	1.19	3.05	76	7.60	2.35	26.94	800	3.87	34.32	0.31	2.95	27.28	87	1.12
488	4.72	34.14	0.68	3.19	89	7.54	2.37	27.05	1000	3.41	34.41	0.41	3.02	27.40	76	1.28
585	4.45	34.19	0.50	3.25	95	7.54	2.38	27.12	1200	2.99	34.47	0.40	3.45	27.49	69	1.43
682	4.18	34.24	0.41	3.37	104	7.51	2.40	27.19								
780	3.92	34.31	0.29	2.98	113	7.51	2.42	27.27								
975	3.46	34.40	0.43	2.92	126	7.57	2.43	27.39								
1168c)	3.06	34.46	0.39	3.42	135	7.57	2.44	27.47								
1465	2.46	34.52	0.72	3.10	151	7.63	2.46	27.57								

a) Second cast; wire angle, 12°.
b) First cast; wire angle, 13°.
c) Third cast; wire angle, 15°.

OBSERVED								COMP	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	SiO_3-Si	pH	Alk.	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	µg at/L		meq/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
BROWN BEAR; August 20, 1958; 0400 GCT; 48°26'N, 124°35'W; sounding, 243 m; wind, 270°, force 4; weather, partly cloudy; sea, smooth; wire angle, 00°.																
0	11.09	31.80	5.20					24.29	0	11.09	31.80	5.20		24.29	364	0.00
10	10.62	31.87	4.50					24.43	10	10.62	31.87	4.50		24.43	351	0.04
20	9.67	32.19	4.04					24.84	20	9.67	32.19	4.04		24.84	313	0.07
30	8.71	32.67	3.47					25.36	30	8.71	32.67	3.47		25.36	263	0.10
50	7.83	33.20	3.26					25.91	50	7.83	33.20	3.26		25.91	211	0.14
75	7.34	33.61	2.98					26.30	75	7.34	33.61	2.98		26.30	174	0.19
100	7.13	33.75	2.52					26.44	100	7.13	33.75	2.52		26.44	162	0.24
125	7.06	33.78	2.42					26.47	150	6.98	33.81	2.35		26.51	156	0.31
150	6.98	33.81	2.35					26.51	200	6.88	33.86	2.16		26.56	151	0.39
175	6.94	33.82	2.30					26.52								
200	6.88	33.86	2.16					26.56								
220	6.87	33.87	2.16					26.57								
BROWN BEAR; August 20, 1958; 0800 GCT; 48°18'N, 124°02'W; sounding, 187 m; wind, 270°, force 1; weather, partly cloudy; sea smooth; wire angle, 04°.																
0	10.72	32.20	4.92					24.67	0	10.72	32.20	4.92		24.67	328	0.00
10	10.30	32.22	4.69					24.76	10	10.30	32.22	4.69		24.76	320	0.03
20	9.86	32.32	4.58					24.91	20	9.86	32.32	4.58		24.91	306	0.06
30	9.61	32.43	4.39					25.03	30	9.61	32.43	4.39		25.03	294	0.09
50	8.27	32.97	3.20					25.66	50	8.27	32.97	3.20		25.66	234	0.15
75	7.30	33.48	2.36					26.20	75	7.30	33.48	2.36		26.20	184	0.20
100	6.92	33.81	2.16					26.51	100	6.92	33.81	2.16		26.51	154	0.24
125	6.88	33.83	2.22					26.54	150	6.84	33.85	2.16		26.56	151	0.32
150	6.84	33.85	2.16					26.56								
175	6.80	33.85	2.06					26.56								
180	6.82	33.85	2.11					26.56								
BROWN BEAR; August 20, 1958; 2000 GCT; 47°45'N, 122°25'W; sounding, 285 m; wind, 020°, force 2; weather, dry haze; sea, calm; wire angle, 00°.																
0	14.28	29.79	5.32					22.14	0	14.28	29.79	5.32		22.14	570	0.00
10	13.52	29.85	4.85					22.34	10	13.52	29.85	4.85		22.34	551	0.06
20	13.24	29.89	4.60					22.42	20	13.24	29.89	4.60		22.42	543	0.11
30	12.93	30.01	4.46					22.57	30	12.93	30.01	4.46		22.57	529	0.16
50	12.76	30.13	4.37					22.70	50	12.76	30.13	4.37		22.70	517	0.27
75	12.72	30.28	4.52					22.82	75	12.72	30.28	4.52		22.82	506	0.40
100	12.54	30.32	4.41					22.89	100	12.54	30.32	4.41		22.89	500	0.52
125	12.54	30.38	4.51					22.93	150	12.60	30.40	4.52		22.94	497	0.77
150	12.60	30.40	4.52					22.94	200	12.44	30.43	4.37		22.99	492	1.02
180	12.48	30.42	4.39					22.97	250		30.47	4.43				
220	12.43	30.43	4.39					22.99								
260	-	30.49	4.45													

202-001

BROWN BEAR; September 21, 1958; 1233, 1249 GCT; 48°16'N, 123°43'W; sounding, 179 m; wind, 270°, force 7; weather, overcast; sea, moderate; wire angle, 02°, 12°.

OBSERVED					COMPUTED	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
0a)	9.82	31.847	4.04	3.05	24.55	0	9.82	31.85	4.04	3.05	24.55	340	0.00
5	9.82	31.848	4.03	2.96	24.55	10	9.72	31.91	3.86	3.04	24.61	334	0.03
10	9.72	31.905	3.86	3.04	24.61	20	9.43	32.10	3.71	2.42	24.81	316	0.07
20	9.43	32.097	3.71	2.42	24.81	30	9.37	32.16	3.60	3.10	24.86	310	0.10
30	9.37	32.158	3.60	3.10	24.86	50	9.25	32.29	3.52	3.05	24.98	299	0.16
50	9.25	32.285	3.52	3.05	24.98	75	9.23	32.35	3.57	2.95	25.03	295	0.23
						100	8.66	32.90	3.37	2.92	25.55	246	0.30
73b)	9.26	32.300	3.57	2.96	24.99	150	7.23	33.71	2.36	3.34	26.39	166	0.40
98	8.76	32.851	3.43	2.90	25.50								
137	7.41	33.595	2.53	3.23	26.28								
176	7.29	33.706	2.22	3.57	26.38								

202-002

BROWN BEAR; September 21, 1958; 1523 GCT; 48°18'N, 124°04'W; sounding, 186 m; wind, 210°, force 4; weather, cloudy; sea, moderate; wire angle, 11°.

0	9.90	31.952	4.35	2.83	24.61	0	9.90	31.95	4.35	2.83	24.61	334	0.00
5	9.85	31.958	4.32	2.85	24.63	10	9.86	31.97	4.20	2.96	24.63	332	0.03
10	9.86	31.973	4.20	2.96	24.63	20	9.74	32.01	4.02	3.09	24.69	327	0.07
20	9.74	32.007	4.02	3.09	24.69	30	9.65	32.11	3.79	3.25	24.78	318	0.10
29	9.67	32.080	3.81	3.25	24.75	50	9.20	32.58	3.37	3.24	25.22	277	0.16
49	9.21	32.565	3.38	3.27	25.21	75	8.55	33.03	2.96	3.13	25.67	234	0.22
74	8.61	33.004	2.99	3.09	25.64	100	7.43	33.60	2.43	3.86	26.28	177	0.27
98	7.45	33.588	2.46	3.86	26.27	150	7.17	33.78	2.04	3.89	26.46	160	0.36
137	7.20	33.764	2.08	3.86	26.44								
177	7.20	33.772	2.09	3.98	26.44								

202-003

BROWN BEAR; September 21, 1958; 1900 GCT; 48°27'N, 124°32'W; sounding, 232 m; wind, 220°, force 4; weather, cloudy; sea, moderate; wire angle, 00°.

0	10.76	31.175	5.06	2.57	23.87	0	10.76	31.18	5.06	2.57	23.87	404	0.00
5	10.64	31.290	4.89	2.57	23.98	10	10.30	31.65	4.39	2.70	24.31	362	0.04
10	10.30	31.645	4.39	2.70	24.31	20	10.02	31.86	4.23	2.80	24.52	342	0.07
20	10.02	31.861	4.23	2.80	24.52	30	10.01	31.91	4.22	2.80	24.56	339	0.11
30	10.01	31.907	4.22	2.80	24.56	50	9.97	31.97	4.01	2.68	24.62	334	0.17
50	9.97	31.974	4.01	2.68	24.62	75	8.78	32.82	2.99	2.90	25.47	253	0.25
75	8.78	32.822	2.99	2.90	25.47	100	7.75	33.46	2.13	3.51	26.12	192	0.30
100	7.75	33.457	2.13	3.51	26.12	150	7.44	33.74	1.49	3.86	26.39	167	0.39
125	7.52	33.652	1.55	3.57	26.31	200	7.37	33.83	1.50	3.62	26.47	160	0.48
150	7.44	33.737	1.49	3.86	26.39								
175	7.42	33.760	1.53	3.66	26.41								
200	7.37	33.826	1.50	3.62	26.47								
225	7.22	33.831	1.55	3.76	26.49								

a) First cast.
b) Second cast.

UW

BB-202

OBSERVED					COMPUTED	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m

202-004 BROWN BEAR; September 22, 1958; 1646, 1819 GCT; 49°26'N, 128°10'W; sounding, 2350 m; wind, calm; weather, partly cloudy; sea, calm; wire angle, 07°, 05°.

0a)	14.58	32.008	5.88	0.74	23.78	0	14.58	32.01	5.88	0.74	23.78	413	0.00
10	14.54	32.009	5.86	0.72	23.79	10	14.54	32.01	5.86	0.72	23.79	412	0.04
20	14.44	32.009	5.84	0.55	23.81	20	14.44	32.01	5.84	0.55	23.81	410	0.08
30	14.38	32.050	5.76	0.69	23.85	30	14.38	32.05	5.76	0.69	23.85	407	0.12
50	9.76	32.454	5.72	1.26	25.02	50	9.76	32.45	5.72	1.26	25.02	295	0.19
75	7.98	32.750	5.19	1.60	25.53	75	7.98	32.75	5.19	1.60	25.53	247	0.26
100	7.35	33.191	4.59	2.00	25.97	100	7.35	33.19	4.59	2.00	25.97	206	0.32
125	6.72	33.581	4.29	2.20	26.36	150	6.90	33.82	3.30	2.44	26.53	154	0.41
149	6.90	33.818	3.38	2.43	26.53	200	6.39	33.88	3.19	2.58	26.64	144	0.48
174	6.79	33.875	2.35	2.54	26.59	250	5.91	33.94	2.58	2.99	26.75	134	0.55
						300	5.59	33.96	1.87	3.22	26.80	129	0.62
197b)	6.30	33.862	3.51	2.60	26.64	400	5.09	34.04	1.18	3.81	26.93	118	0.74
						500	4.72	34.12	0.74	3.63	27.03	109	0.85
199a)	6.52	33.913	2.91	2.51	26.65	600	4.29	34.20	0.46	3.70	27.14	99	0.96
						700	4.06	34.26	0.33	3.89	27.21	93	1.05
247b)	5.81	33.910	3.06	3.05	26.74	800	3.84	34.32	0.30	3.77	27.28	86	1.14
						1000	3.33	34.40	0.33	3.83	27.40	76	1.31
248a)	6.02	33.959	2.18	2.90	26.75	1200	2.86	34.46	0.51	3.52	27.49	68	1.45
						1500	2.35	34.53	0.83	3.45	27.59	59	1.64
296b)	5.61	33.962	1.90	3.18	26.80								
395	5.10	34.039	1.21	3.82	26.93								
493	4.76	34.113	0.76	3.64	27.02								
592	4.31	34.191	0.48	3.66	27.13								
691	4.08	34.260	0.34	3.91	27.21								
789	3.87	34.312	0.30	3.76	27.27								
987	3.36	34.400	0.32	3.86	27.39								
1480	2.38	34.532	0.81	3.44	27.59								
1780	2.08	34.575	1.19	3.82	27.65								

202-005 BROWN BEAR; September 23, 1958; 2047, 2222 GCT; 50°02'N, 132°22'W; sounding, 3191 m; wind, 200°, force 5; weather, cloudy; sea, slight; wire angle, 04°, 00°.

0a)	15.21	32.545	5.90	0.63	24.06	0	15.21	32.55	5.90	0.63	24.06	386	0.00
10	15.17	32.544	5.85	0.60	24.06	10	15.17	32.54	5.85	0.60	24.06	386	0.04
20	15.10	32.541	5.87	0.94	24.08	20	15.10	32.54	5.87	0.94	24.08	385	0.08
30	15.10	32.547	5.88	0.69	24.09	30	15.10	32.55	5.88	0.69	24.09	385	0.12
50	9.60	32.501	6.91	1.15	25.09	50	9.60	32.50	6.91	1.15	25.09	289	0.18
75	8.38	32.537	6.44	1.40	25.31	75	8.38	32.54	6.44	1.40	25.31	268	0.25
100	7.17	32.772	6.01	1.71	25.66	100	7.17	32.77	6.01	1.71	25.66	235	0.32
125	6.44	33.190	5.50	1.91	26.09	150	6.07	33.45	5.15	2.20	26.34	171	0.42
150	6.07	33.454	5.15	2.20	26.34	200	5.63	33.84	3.76	2.95	26.70	137	0.49
175	6.04	33.696	4.61	2.26	26.54	250	5.35	33.88	3.26	2.82	26.77	131	0.56
						300	4.96	33.91	2.62	3.02	26.84	125	0.62
196b)	5.94	33.786	4.30	3.91	26.63	400	4.41	34.00	1.53	3.81	26.97	113	0.74
						500	4.08	34.09	0.97	3.98	27.08	104	0.85
200a)	5.34	33.890	3.25	2.96	26.78	600	3.85	34.18	0.64	4.03	27.17	95	0.95
						700	3.69	34.25	0.47	4.31	27.24	89	1.04
245b)	5.44	33.881	3.38	2.82	26.76	800	3.50	34.30	0.44	4.38	27.30	84	1.13
						1000	3.05	34.38	0.37	4.04	27.41	75	1.29
250a)	5.30	33.889	3.20	2.82	26.78	1200	2.73	34.45	0.46	4.03	27.49	67	1.43
						1500	2.34	34.51	0.68	4.03	27.57	60	1.62
294b)	5.00	33.909	2.70	2.95	26.83								
392	4.44	33.990	1.59	3.79	26.96								
491	4.11	34.080	1.01	3.99	27.07								
590	3.86	34.166	0.67	3.99	27.16								
688	3.71	34.235	0.47	4.28	27.23								
787	3.53	34.290	0.45	4.42	27.29								
983	3.08	34.374	0.37	4.04	27.40								
1180	2.76	34.447	0.45	4.02	27.49								
1479	2.36	34.514	0.66	4.04	27.57								
1778	2.11	34.565	1.08	3.80	27.64								

a) Second cast.

b) First cast.

202-006

BROWN BEAR; September 25, 1958; 1633, 1821 GCT; 49°56'N, 135°58'W; sounding, 3658 m; wind, 140°, force 5; weather, rain; sea, slight; wire angle, 16°, 10°.

OBSERVED					COMPUTED
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L
0a)	14.00	32.311	5.97	0.59	24.13
10	14.02	32.314	5.95	1.03	24.13
19	13.90	32.317	5.96	0.58	24.16
28	14.00	32.319	5.95	0.59	24.14
47	9.44	32.547	6.98	1.12	25.15
71	7.91	32.614	6.56	1.33	25.43
95	7.24	32.713	6.50	1.52	25.61
119	6.40	32.957	5.76	1.92	25.91
143	5.70	33.430	5.39	2.18	26.37
167	5.43	33.599	5.13	2.26	26.54
187b)	5.36	33.736	4.30	2.62	26.66
191a)	5.29	33.697	4.57	2.46	26.63
233b)	5.02	33.839	3.83	2.82	26.78
239a)	5.02	33.815	3.93	2.62	26.76
280b)	4.83	33.886	2.83	3.10	26.84
373	4.57	33.998	1.47	3.76	26.95
466	4.22	34.072	1.00	3.86	27.05
560	3.97	34.138	0.67	4.28	27.13
653	3.74	34.214	0.47	4.29	27.21
745	3.54	34.278	0.43	4.30	27.28
932	3.18	34.370	0.32	4.42	27.39
1121	2.86	34.435	0.39	3.98	27.47
1408	2.42	34.497	0.55	4.04	27.56
1703	2.14	34.554	0.88	3.94	27.62

INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ cl/ton	ΔD dyn m
0	14.00	32.31	5.97	0.59	24.13	379	0.00
10	14.02	32.31	5.95	1.03	24.13	380	0.04
20	13.98	32.32	5.94	0.57	24.14	379	0.08
30	13.38	32.35	6.12	0.66	24.29	365	0.11
50	9.20	32.56	6.91	1.15	25.20	278	0.18
75	7.81	32.62	6.60	1.35	25.46	254	0.24
100	7.05	32.74	6.32	1.61	25.66	236	0.30
150	5.61	33.48	5.37	2.18	26.42	163	0.40
200	5.24	33.75	4.36	2.56	26.68	139	0.48
250	4.95	33.85	3.52	2.85	26.79	129	0.55
300	4.78	33.92	2.46	3.29	26.87	122	0.61
400	4.46	34.02	1.32	3.76	26.98	112	0.73
500	4.13	34.10	0.87	4.06	27.08	104	0.84
600	3.87	34.17	0.56	4.28	27.16	96	0.94
700	3.64	34.25	0.45	4.29	27.25	89	1.03
800	3.43	34.31	0.38	4.39	27.32	83	1.12
1000	3.06	34.40	0.34	4.22	27.42	73	1.27
1200	2.72	34.46	0.42	4.01	27.50	66	1.41
1500	2.31	34.52	0.63	4.03	27.58	59	1.60

202-007

BROWN BEAR; September 26-27, 1958; 2221, 0009 GCT; 50°01'N, 139°49'W; sounding, 3786 m; wind, 200°, force 7; weather, sky obscured; sea, moderate; wire angle, 07°, 05°.

OBSERVED					COMPUTED
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L
0a)	12.78	32.619	6.13	0.80	24.62
10	12.35	32.617	6.13	0.75	24.70
20	12.35	32.614	6.13	0.77	24.69
30	12.32	32.612	6.13	0.74	24.70
50	10.92	32.666	6.19	0.81	25.00
75	7.15	32.787	6.70	1.26	25.68
100	6.66	32.821	6.57	1.37	25.77
125	6.05	33.014	5.95	1.50	26.00
150	5.60	33.392	5.33	1.80	26.35
175	5.18	33.626	4.80	1.90	26.59
192b)	4.92	33.726	4.45	2.13	26.70
199a)	4.92	33.728	4.50	2.12	26.70
241b)	4.63	33.826	3.54	2.49	26.81
249a)	4.58	33.809	3.84	2.38	26.80
289b)	4.39	33.889	2.62	2.68	26.89
386	4.09	34.000	1.55	2.63	27.00
482	3.86	34.107	1.04	3.16	27.12
580	3.64	34.190	0.58	3.38	27.20
676	3.45	34.241	0.55	3.53	27.26
773	3.28	34.297	0.53	3.63	27.32
967	2.94	34.378	0.41	3.40	27.42
1160	2.68	34.438	0.45	2.40	27.49
1453	2.38	34.509	0.69	2.40	27.57
1751	2.08	34.560	1.02	2.40	27.63

INTERPOLATED					COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	PO_4-P µg at/L	σ_t g/L	δ cl/ton	ΔD dyn m
0	12.78	32.62	6.13	0.80	24.62	333	0.00
10	12.35	32.62	6.13	0.75	24.70	326	0.03
20	12.35	32.61	6.13	0.77	24.69	327	0.07
30	12.32	32.61	6.13	0.74	24.70	326	0.10
50	10.92	32.67	6.19	0.81	25.00	298	0.16
75	7.15	32.79	6.70	1.26	25.68	233	0.23
100	6.66	32.82	6.57	1.37	25.77	225	0.28
150	5.60	33.39	5.33	1.80	26.35	170	0.38
200	4.89	33.74	4.43	2.15	26.71	136	0.46
250	4.59	33.83	3.55	2.48	26.82	126	0.52
300	4.35	33.90	2.47	2.64	26.90	119	0.59
400	4.06	34.02	1.47	2.73	27.02	108	0.70
500	3.82	34.13	0.92	3.21	27.13	98	0.80
600	3.60	34.20	0.57	3.42	27.21	91	0.90
700	3.41	34.26	0.55	3.57	27.28	86	0.99
800	3.23	34.31	0.50	3.64	27.34	80	1.07
1000	2.89	34.39	0.41	3.17	27.43	72	1.22
1200	2.64	34.45	0.48	2.40	27.50	66	1.36
1500	2.33	34.52	0.74	2.40	27.58	59	1.55

a) Second cast.
b) First cast.

OBSERVED					COMPUTED	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
202-008 BROWN BEAR; September 27-28, 1958; 2313, 0100 GCT; 47°59'N, 140°02'W; sounding, 4115 m; wind, 220°, force 3; weather, drizzle; sea, moderate; wire angle, 10°, 00°.													
0a)	14.06	32.597	5.94	0.80	24.34	0	14.06	32.60	5.94	0.80	24.34	359	0.00
10	14.04	32.600	5.95	0.81	24.35	10	14.04	32.60	5.95	0.81	24.35	359	0.04
20	13.97	32.608	5.95	0.79	24.37	20	13.97	32.61	5.95	0.79	24.37	357	0.07
30	13.97	33.620	5.92	0.81	24.38	30	13.97	32.62	5.92	0.81	24.38	357	0.11
50	13.50	32.654	5.98	0.99	24.50	50	13.50	32.65	5.98	0.99	24.50	346	0.18
75	8.06	32.694	6.62	1.12	25.47	75	8.06	32.69	6.62	1.12	25.47	253	0.25
100	7.62	32.793	6.69	1.30	25.62	100	7.62	32.79	6.69	1.30	25.62	240	0.32
125	6.92	32.884	6.23	1.45	25.78	150	6.22	33.31	5.25	1.75	26.21	183	0.42
150	6.22	33.313	5.25	1.75	26.21	200	6.10	33.79	3.96	2.12	26.61	147	0.50
175	6.10	33.622	4.88	1.73	26.47	250	5.73	33.89	3.07	2.08	26.73	135	0.57
						300	5.20	33.93	2.29	2.18	26.83	126	0.64
192b)	6.14	33.778	4.03	2.02	26.59	400	4.50	34.00	1.46	2.56	26.96	114	0.76
						500	4.26	34.08	0.90	2.75	27.05	106	0.87
200a)	6.09	33.784	4.03	2.24	26.60	600	3.89	34.15	0.68	2.83	27.14	98	0.97
						700	3.72	34.23	0.46	2.90	27.22	91	1.06
240b)	5.82	33.889	3.19	2.21	26.72	800	3.52	34.30	0.37	2.89	27.30	84	1.15
						1000	3.11	34.39	0.33	3.02	27.41	75	1.31
250a)	5.74	33.890	3.18	1.94	26.73	1200	2.76	34.45	0.41	2.65	27.49	68	1.45
						1500	2.33	34.50	0.64	2.12	27.57	61	1.65
288b)	5.35	33.922	2.39	2.13	26.80								
384	4.50	33.978	1.61	2.48	26.94								
479	4.38	34.074	0.92	2.80	27.03								
574	3.93	34.129	0.77	2.72	27.12								
670	3.77	34.213	0.49	2.97	27.20								
765	3.61	34.275	0.40	2.82	27.28								
958	3.18	34.378	0.32	3.03	27.40								
1154	2.85	34.438	0.39	2.86	27.47								
1447	2.39	34.491	0.59	2.11	27.55								
1744	2.14	34.547	0.92	2.77	27.62								
202-009 BROWN BEAR; September 28, 1958; 2104, 2246 GCT; 47°57'N, 136°36'W; sounding, 4188 m; wind, 220°, force 1; weather, light fog; sea, smooth; wire angle, 02°, 00°.													
0a)	14.52	32.627	5.95	0.56	24.27	0	14.52	32.63	5.95	0.56	24.27	366	0.00
10	14.23	32.632	5.99	0.83	24.33	10	14.23	32.63	5.99	0.83	24.33	361	0.04
20	14.07	32.624	5.95	0.74	24.36	20	14.07	32.62	5.95	0.74	24.36	358	0.07
30	14.11	32.635	5.97	0.73	24.36	30	14.11	32.64	5.97	0.73	24.36	358	0.11
50	8.82	32.638	7.06	1.01	25.32	50	8.82	32.64	7.06	1.01	25.32	267	0.17
75	7.95	32.741	6.62	1.02	25.53	75	7.95	32.74	6.62	1.02	25.53	247	0.23
100	7.28	32.793	6.07	1.32	25.66	100	7.28	32.79	6.07	1.32	25.66	235	0.29
125	6.48	33.170	5.63	1.56	26.07	150	6.08	33.52	5.40	1.60	26.40	166	0.39
150	6.08	33.522	5.40	1.60	26.40	200	5.51	33.72	5.03	1.85	26.62	145	0.47
175	5.81	33.634	5.34	1.66	26.52	250	4.97	33.81	4.12	2.11	26.76	132	0.54
						300	4.47	33.89	2.82	2.43	26.88	121	0.60
197b)	5.46	33.731	5.02	1.96	26.64	400	4.37	34.02	1.32	2.91	26.99	111	0.72
						500	3.95	34.09	1.00	2.79	27.09	102	0.83
200a)	5.60	33.707	5.10	1.72	26.61	600	3.79	34.17	0.64	2.95	27.17	96	0.93
						700	3.52	34.23	0.53	2.92	27.24	89	1.02
246b)	4.92	33.813	4.14	2.16	26.76	800	3.33	34.28	0.47	2.73	27.30	84	1.10
						1000	3.00	34.38	0.38	2.72	27.41	74	1.26
250a)	5.08	33.805	4.21	2.04	26.75	1200	2.74	34.45	0.38	2.86	27.49	67	1.40
						1500	2.36	34.52	0.62	2.79	27.58	60	1.59
296b)	4.47	33.878	2.91	2.40	26.87								
395	4.40	34.017	1.33	2.92	26.99								
494	3.96	34.085	1.03	2.78	27.09								
593	3.81	34.162	0.65	2.94	27.16								
692	3.53	34.229	0.54	2.94	27.24								
791	3.35	34.280	0.48	2.73	27.30								
988	3.02	34.373	0.38	2.71	27.40								
1187	2.76	34.449	0.37	2.87	27.49								
1483	2.38	34.524	0.60	2.79	27.58								
1782	2.06	34.570	1.04	2.81	27.64								

a) Second cast.
b) First cast.

BROWN BEAR; September 29-30, 1958; 2233, 0004 GCT; 47°58'N, 133°08'W; sounding, 3493 m; wind, 340°, force 3; weather, cloudy; sea, smooth; wire angle, 07°, 03°.

OBSERVED					COMPUTED
Z	T	S	O_2	PO_4-P	σ_t
m	°C	‰	ml/L	µg at/L	g/L
0a)	16.44	32.477	5.66	0.67	23.73
10	16.42	32.475	5.77	0.70	23.74
20	16.08	32.477	5.69	0.64	23.82
30	16.22	32.496	5.68	0.57	23.80
50	11.24	32.579	7.10	0.73	24.87
75	8.87	32.592	6.50	1.19	25.28
100	7.95	32.634	6.20	1.32	25.44
125	7.16	32.901	5.77	1.51	25.77
150	6.37	33.316	5.40	1.77	26.20
175	6.17	33.615	4.94	1.66	26.46
196b)	6.25	33.804	4.64	1.82	26.60
200a)	6.20	33.812	4.60	1.71	26.61
246b)	5.75	33.889	3.90	2.07	26.73
250a)	5.73	33.887	3.83	2.08	26.73
295b)	5.20	33.909	2.96	2.27	26.81
393	4.60	33.974	1.75	2.51	26.93
492	4.24	34.073	0.92	2.82	27.04
591	3.96	34.157	0.58	2.87	27.14
689	3.73	34.235	0.48	2.98	27.23
788	3.56	34.291	0.40	2.90	27.29
985	3.14	34.378	0.31	3.07	27.40
1182	2.84	34.448	0.41	3.07	27.48
1478	2.38	34.516	0.71	2.90	27.58
1778	2.08	34.567	1.11	2.72	27.64

INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
0	16.44	32.48	5.66	0.67	23.73	417	0.00
10	16.42	32.48	5.77	0.70	23.74	417	0.04
20	16.08	32.48	5.69	0.64	23.82	410	0.08
30	16.22	32.50	5.68	0.57	23.80	412	0.12
50	11.24	32.58	7.10	0.73	24.87	310	0.20
75	8.87	32.59	6.50	1.19	25.28	272	0.27
100	7.95	32.63	6.20	1.32	25.44	256	0.34
150	6.37	33.32	5.40	1.77	26.20	184	0.44
200	6.20	33.80	4.59	1.78	26.60	147	0.53
250	5.71	33.89	3.82	2.09	26.73	135	0.60
300	5.16	33.91	2.89	2.28	26.82	128	0.66
400	4.57	33.98	1.68	2.54	26.94	116	0.79
500	4.22	34.08	0.88	2.82	27.05	106	0.90
600	3.94	34.17	0.57	2.89	27.15	97	1.00
700	3.71	34.25	0.47	2.97	27.24	90	1.09
800	3.53	34.30	0.39	2.92	27.30	84	1.18
1000	3.12	34.39	0.31	3.07	27.41	75	1.34
1200	2.81	34.45	0.43	3.06	27.49	68	1.48
1500	2.35	34.52	0.74	2.89	27.58	59	1.67

a) Second cast.
b) First cast.

202-011 BROWN BEAR; September 30-October 1, 1958; 2225, 2354, 0015 GCT; 47°59'N, 130°08'W; sounding, 2580 m; wind, 300°, force 3; weather, overcast; sea, slight; wire angle, 06°, 07°, 10°.

OBSERVED					COMPUTED	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
0a)	16.30	32.219	5.66	0.60	23.57	0	16.30	32.22	5.66	0.60	23.57	433	0.00
10	16.22	32.219	5.69	0.56	23.58	10	16.22	32.22	5.69	0.56	23.58	432	0.04
20	16.17	32.208	5.69	0.55	23.59	20	16.17	32.21	5.69	0.55	23.59	432	0.09
30	16.08	32.220	5.70	0.69	23.62	30	16.08	32.22	5.70	0.69	23.62	429	0.13
50	12.40	32.403	6.42	0.87	24.52	50	12.40	32.40	6.42	0.87	24.52	344	0.21
75	8.84	32.485	6.29	1.28	25.20	75	8.84	32.49	6.29	1.28	25.20	279	0.28
100	7.99	32.658	5.84	1.31	25.46	100	7.99	32.66	5.84	1.31	25.46	254	0.35
125	7.46	33.021	4.95	1.70	25.82	150	7.03	33.39	4.42	1.94	26.17	188	0.46
						200	6.62	33.81	3.75	2.14	26.55	152	0.55
148b)	7.04	33.360	4.49	1.94	26.14	250	6.13	33.91	3.29	2.13	26.70	139	0.62
172	6.86	33.654	3.90	1.97	26.40	300	5.66	33.94	2.32	2.34	26.78	131	0.69
						400	5.02	34.01	1.37	2.75	26.91	120	0.81
195c)	6.68	33.821	3.73	2.12	26.55	500	4.54	34.11	0.78	2.83	27.04	108	0.92
						600	4.28	34.18	0.48	3.02	27.13	100	1.03
196b)	6.64	33.788	3.77	2.18	26.54	700	4.07	34.26	0.35	3.02	27.21	93	1.12
						800	3.86	34.32	0.29	2.99	27.28	87	1.22
244c)	6.16	33.905	3.40	2.13	26.69	1000	3.42	34.40	0.28	3.04	27.39	77	1.38
						1200	3.02	34.46	0.40	2.97	27.47	70	1.53
245b)	6.25	33.900	3.47	2.09	26.67	1500	2.40	34.53	0.78	2.97	27.58	59	1.72
293c)	5.71	33.939	2.40	2.29	26.77								
391	5.08	34.004	1.44	2.75	26.90								
489	4.58	34.095	0.83	2.80	27.03								
588	4.30	34.173	0.50	3.02	27.12								
686	4.10	34.251	0.36	3.03	27.20								
784	3.90	34.308	0.29	2.98	27.27								
981	3.46	34.391	0.28	3.05	27.38								
1177	3.08	34.449	0.37	2.96	27.46								
1472	2.44	34.523	0.74	2.98	27.57								
1771	2.12	34.576	1.13	2.82	27.65								

a) Second cast.
b) Third cast.
c) First cast.

202-012

BROWN BEAR; October, 1, 1958; 2111, 2252 GCT; 47°55'N, 126°45'W; sounding, 2286 m; wind, 350°, force 5; weather, partly cloudy; sea, moderate; wire angle, 07°, 06°.

OBSERVED					COMPUTED	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
0a)	15.75	32.171	5.77	0.65	23.65	0	15.75	32.17	5.77	0.65	23.65	425	0.00
10	15.66	32.167	5.79	0.89	23.67	10	15.66	32.17	5.79	0.89	23.67	424	0.04
20	15.60	32.166	5.79	0.69	23.68	20	15.60	32.17	5.79	0.69	23.68	423	0.08
30	15.61	32.164	5.78	0.73	23.67	30	15.61	32.16	5.78	0.73	23.67	424	0.13
50	11.92	32.342	5.88	1.18	24.56	50	11.92	32.34	5.88	1.18	24.56	340	0.20
75	8.46	32.577	5.57	1.47	25.33	75	8.46	32.58	5.57	1.47	25.33	266	0.28
100	7.66	32.893	5.23	1.74	25.69	100	7.66	32.89	5.23	1.74	25.69	233	0.34
125	6.88	33.296	5.12	2.03	26.12	150	6.82	33.59	4.93	1.92	26.35	170	0.44
150	6.82	33.586	4.93	1.92	26.35	200	6.96	33.92	2.60	2.31	26.60	148	0.52
174	7.22	33.888	2.64	2.52	26.54	250	6.56	33.96	2.21	2.31	26.68	140	0.59
196b)	7.05	33.926	2.60	2.29	26.59	300	6.16	33.98	1.85	2.74	26.75	134	0.66
199a)	6.92	33.924	2.64	2.36	26.60	400	5.19	34.02	1.40	2.85	26.90	121	0.79
245b)	6.58	33.963	2.25	2.05	26.68	500	4.84	34.09	0.90	2.84	26.99	112	0.91
248a)	6.58	33.960	2.23	2.46	26.68	600	4.43	34.17	0.56	3.07	27.10	103	1.02
294b)	6.24	33.983	1.87	2.72	26.74	700	4.12	34.23	0.43	3.15	27.18	96	1.11
392	5.22	34.010	1.44	2.87	26.89	800	3.93	34.31	0.33	3.36	27.27	88	1.21
490	4.88	34.084	0.95	2.80	26.98	1000	3.44	34.42	0.33	3.33	27.40	76	1.37
588	4.48	34.158	0.58	3.08	27.09	1200	3.08	34.47	0.47	3.18	27.48	70	1.52
686	4.14	34.221	0.45	3.11	27.17	1500	2.61	34.53	0.76	3.10	27.57	62	1.71
784	3.97	34.302	0.34	3.35	27.25								
981	3.48	34.405	0.32	3.35	27.39								
1177	3.11	34.458	0.45	3.19	27.47								
1471	2.66	34.523	0.73	3.11	27.55								
1770	2.16	34.570	1.13	3.03	27.64								

202-013

BROWN BEAR; October 2, 1958; 0430, 0546 GCT; 48°10'N, 125°48'W; sounding, 732 m; wind, 330°, force 2; weather, partly cloudy; sea, slight; wire angle, 30°, 25°.

0a)	13.64	32.070	6.25	0.71	24.02	0	13.64	32.07	6.25	0.71	24.02	390	0.00
10	13.28	32.080	6.56	0.84	24.10	10	13.28	32.08	6.56	0.84	24.10	383	0.04
20	12.84	32.097	6.29	1.01	24.20	20	12.84	32.10	6.29	1.01	24.20	373	0.08
30	11.22	32.299	5.53	1.25	24.66	30	11.22	32.30	5.53	1.25	24.66	330	0.11
50	8.12	32.778	5.34	1.50	25.54	50	8.12	32.78	5.34	1.50	25.54	246	0.17
75	7.52	33.231	4.65	1.81	25.98	75	7.52	33.23	4.65	1.81	25.98	205	0.23
100	7.50	33.535	3.62	1.97	26.22	100	7.50	33.54	3.62	1.97	26.22	182	0.27
124	7.56	33.752	2.82	2.28	26.38	150	7.33	33.85	2.19	2.44	26.49	158	0.36
148	7.36	33.841	2.23	2.33	26.48	200	6.87	33.94	1.86	2.52	26.62	145	0.44
168	7.16	33.901	2.00	2.80	26.55	250	6.48	33.99	1.76	2.51	26.71	137	0.51
180b)	7.10	33.917	2.00	2.42	26.58	300	6.13	34.02	1.56	2.60	26.78	131	0.57
192a)	6.98	33.930	1.83	2.57	26.60	400	5.61	34.07	1.12	2.69	26.89	122	0.70
224b)	6.65	33.974	1.87	2.45	26.68	500	5.06	34.12	0.75	2.81	26.99	113	0.82
240a)	6.60	33.978	1.79	2.48	26.69								
271b)	6.27	34.007	1.68	2.56	26.76								
365	5.80	34.048	1.28	2.68	26.85								
461	5.28	34.102	0.88	2.75	26.95								
560	4.72	34.148	0.60	2.92	27.06								

a) Second cast.
b) First cast.

202-014 BROWN BEAR; October 2, 1958; 1617, 1639 GCT; 48°26'N, 124°33'W; sounding, 243 m; wind, 090°, force 2; weather, partly cloudy; sea, smooth; wire angle, 22°, 30°.

OBSERVED					COMPUTED	INTERPOLATED					COMPUTED		
Z	T	S	O_2	PO_4-P	σ_t	Z	T	S	O_2	PO_4-P	σ_t	δ	ΔD
m	°C	‰	ml/L	µg at/L	g/L	m	°C	‰	ml/L	µg at/L	g/L	cl/ton	dyn m
0a)	10.57	31.679	4.60	2.06	24.29	0	10.57	31.68	4.60	2.06	24.29	364	0.00
5	10.20	31.708	4.21	2.21	24.38	10	10.00	31.77	4.03	2.16	24.46	349	0.04
10	10.00	31.766	4.03	2.16	24.46	20	9.56	32.08	3.74	2.17	24.77	319	0.07
20	9.56	32.075	3.74	2.17	24.77	30	9.38	32.24	3.50	2.25	24.92	305	0.10
30	9.38	32.241	3.50	2.25	24.92	50	8.41	33.04	2.73	2.23	25.70	231	0.15
50	8.41	33.037	2.73	2.23	25.70	75	7.54	33.63	2.60	2.21	26.29	176	0.20
74	7.54	33.633	2.60	2.21	26.29	100	7.47	33.69	2.51	2.25	26.34	170	0.25
98	7.48	33.683	2.53	2.23	26.33	150	7.20	33.85	2.08	2.29	26.51	156	0.33
122	7.34	33.792	2.27	2.40	26.44								
146	7.22	33.840	2.09	2.29	26.50								
170	7.10	33.880	2.04	2.32	26.54								
194	7.03	33.903	1.95	2.36	26.57								
195b)	7.00	33.909	2.12	2.44	26.58								

a) First cast.
b) Second cast.

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